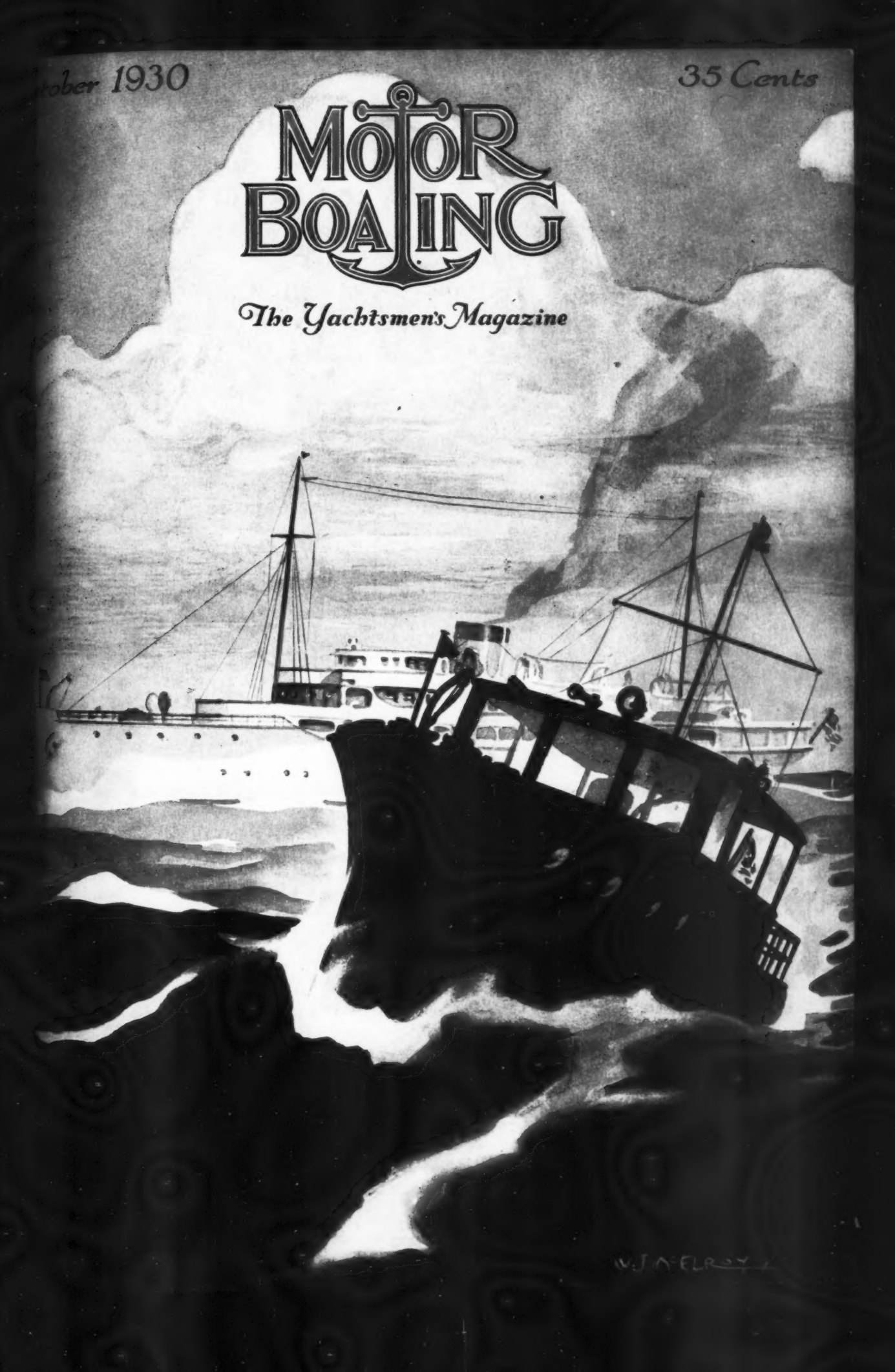
tober 1930

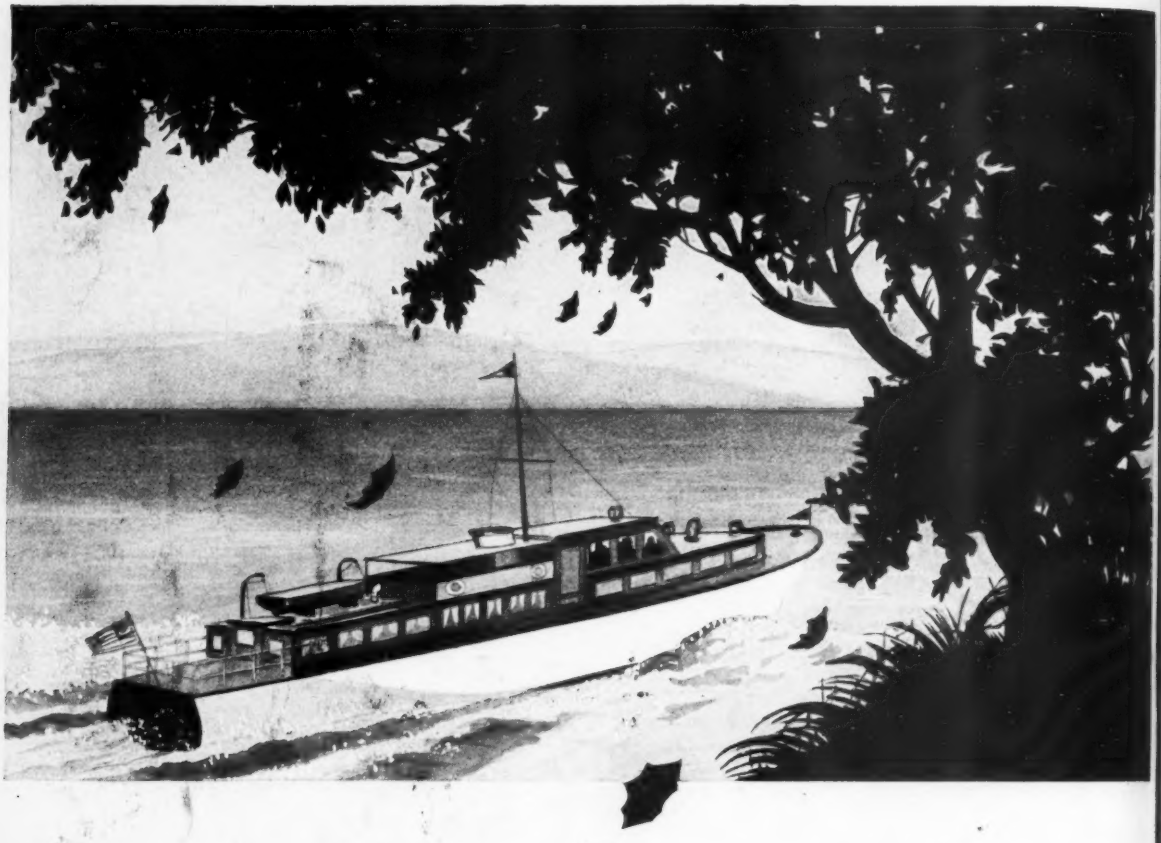
35 Cents

MOTOR BOATING

The Yachtsmen's Magazine



QUIET AS A FALLING LEAF



• • Silently floating down from wooded boughs above, to drift on in silent security that is carefree, happy-go-lucky and buoyant in comfort.

Gone are the days when a premium was placed on silence. Throbbing, irritating noises rising from the exhausts and intakes of large marine engines have been quieted with Standard Maxim Silencers. No matter what size boat, a large, luxurious Diesel driven yacht or the small, sporty cruiser in the thirty or forty foot class, Maxim can silence the noises and eliminate the pulsations of exhausts and intakes.

Inexpensive—compact and small—light—extremely efficient (99.4). Standard Maxim Silencers are available in stock sizes at your marine dealer—ready for immediate shipment—the larger sizes easily installed in your boat within twenty four hours after delivery.

Our large staff of silencing engineers is available for consultation with your marine architect, or if there is any information you desire, we will gladly send it to you. Write for "Maxim and the Mariner."

THE MAXIM SILENCER COMPANY
Marine Sales Division
HARTFORD, CONNECTICUT
NEW YORK—250 PARK AVENUE

MAXIM CAN SILENCE ANY NOISE THAT COMES OUT OF A PIPE

Now! Have a Fast Dinghy

or 25 M. P. H. Pleasure Boat

Starts Electrically, drives like a motor car, navigates in shallow waters as safely as in deep waters, due to tilting propeller, and you can beach it anywhere

JOHNSON'S revolutionary advancements in Outboard Motor performance have this year won the preference of yachtsmen of America.

Dinghies using slow, difficult-starting motors are being converted into fast auxiliaries, by Electrically Started, super-powered Johnson Sea-Horse Motors.

For Johnson, World's largest manufacturer of outboard motors, now offers 3 great Electric-Starting Models: Sea-Horses "16," "24," and "32." These motors also have auxiliary hand-starting, made 50% easier by Johnson's Release Charger. They have exclusive Water-cooled Underwater Exhaust.

Sea-Horses "4" and "12," also new this year, introduce Alternate Firing cylinders—the first time in high speed twins, making hand-starting exceptionally easy, and reducing vibration to the vanishing point.

Try their vastly improved performance. Dealers everywhere will demonstrate. Partial payments if desired.

Write for Color-illustrated Catalog

See also the new fleet of Johnson Boats built in Matched Units with Johnson Sea-Horses to produce the utmost in speed and ease of handling. Sealite construction, seamless, waterproof makes these boats ⅓ stronger, yet 50% lighter in service.

All dealers carry first-aid service parts. Stations for complete service in all parts of the country. All prices f. o. b. factory. Write for color-catalog.

JOHNSON MOTOR CO., 3016 Pershing Rd., Waukegan, Ill.
In Canada: Canadian Johnson Motor Co., Ltd., Peterboro, Ont.
World's Largest Manufacturer of Outboard Motors & Matched Units

Illustrated above Johnson's 14-ft. Utility "A" Boat, $125. Complete line of boats built in Matched Units with Sea-Horse Motors $250 to $1065 complete. Motor prices $125 to $395.

SWEEP 1930 RACE CLASSICS

Johnson Sea-Horses have scored sweeping victories in the major racing classics this year, including the Sir Thomas Lipton $25,000 Trophy at Palm Beach, Fla. March 22-23; the Col. E. H. R. Green Trophy at Miami, Fla. March 27; the Albany-New York Marathon, April 26; Eastern Intercollegiate, Skaneateles, N. Y., May 17; the Gold Cup Regatta, Red Bank, N. J., Aug. 16-17 and the Harmsworth Trophy Regatta, Detroit, Aug. 30-Sept. 1. Johnson Sea-Horses hold more official speed records than all other makes combined.

JOHNSON

Matched UNITS

SEA-HORSES & BOATS

MoToR BoatinG, October, 1930. Volume XLVI, No. 4. Published monthly at 57th Street at Eighth Avenue, New York, U. S. A., by International Magazine Co., Inc. Yearly subscription price; United States, $3.00; Canada, $3.00; Foreign, $4.00. Entered as second-class matter April 15, 1925, at the Post Office at New York, under the act of March 3, 1879. (Printed in U. S. A.)

ENTERPRISE

America's Cup defender

Built by

HERRESHOFF MFG. CO.

Finished with
Edward Smith Paints and Varnishes

THE ENTERPRISE, built by the Herreshoff Manufacturing Co., of Bristol, R. I., is proved the finest and fastest in American waters. She is a fitting example of Herreshoff craftsmanship—built of the finest materials throughout—and likewise finished with the finest paints and varnishes produced today.

Edward Smith Paints and Varnishes were selected by Herreshoff Manufacturing Co., for the Enterprise. Every other Herreshoff cup defender in the past has been finished with Smith materials—the choice of good boat builders and owners for more than a century. Appearance, long life and lowest cost—these are the standards by which they judge.

There is a Smith Paint and Varnish for every marine purpose. Write for literature and color card.

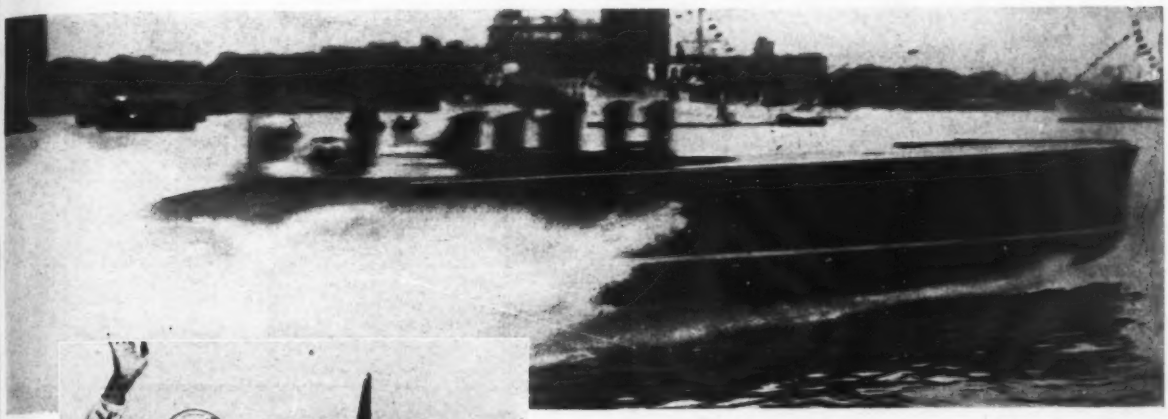
EDWARD SMITH & COMPANY

LONG ISLAND CITY, N. Y.

Makers of Marine Paints and Varnishes since 1827

Advertising index will be found on 3rd last page

UNBEATABLE . . .



Above:
MISS AMERICA IX speeding up the Detroit river at 90 m. p. h. on Labor Day.

Center:
The greatest racing team in the world—Gar Wood and Orlin Johnson. Wood is displaying his Teddy Bear Mascots without which he never drives.

GAR WOOD, *the mightiest of them all*

. . . again Duplex Marine Engine Oil Aids Gar Wood in Defending the HARMSWORTH!

ONCE again Gar Wood . . . the greatest racing figure the world of motor boating has ever known . . . has successfully defended the Harmsworth Trophy, *and for the fifth consecutive year he depended on Duplex Marine Engine Oil.*

In again turning back the British challenge, Wood provided the world with the greatest spectacle in history. Three Wood boats started . . . Miss America VIII and Miss America IX with Packard engines and Miss America V with Gar Wood Liberty engines. *Three Wood boats finished.* Two challenging boats entered . . . neither was running at the finish of the second heat.

Gar Wood: "All three of my boats used Duplex Marine Engine Oil. Our lubrication was perfect in all three boats, both heats."

Commodore Wood used regular production Duplex Marine Engine Oil Grade Z . . . exactly the same lubricant that is used by other discriminating sportsmen all over the world.

Duplex today, more than ever, is the oil of champions.

ENTERPRISE OIL COMPANY, Inc.

Established 1884 **BUFFALO, NEW YORK**

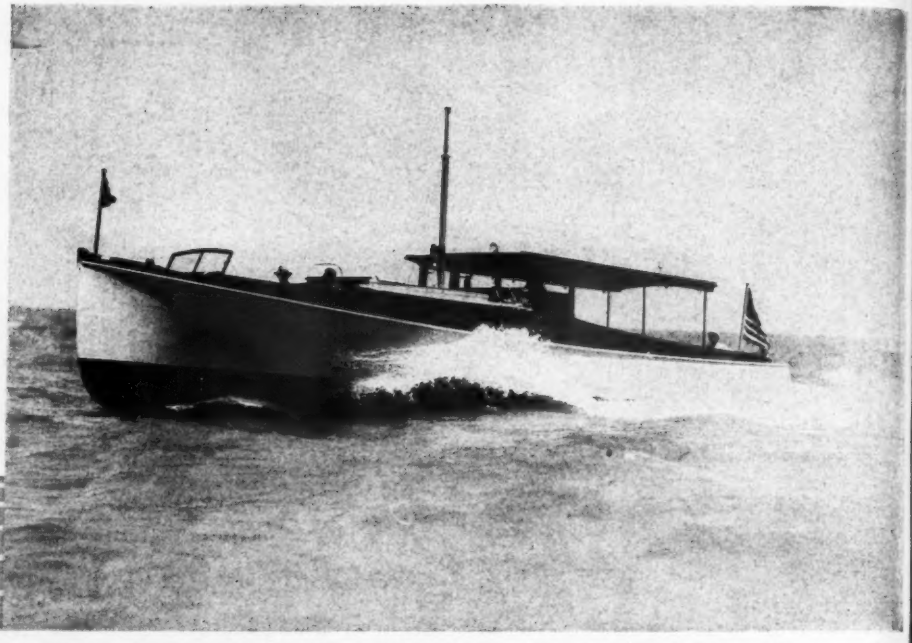
WHOLESALE DISTRICT DISTRIBUTORS IN

Baltimore Boston Chicago Cleveland Detroit Houston Miami New Orleans New York Palm Beach Philadelphia St. Louis

Pacific Coast Distributors: Portland, *Beebe Co.;* San Diego, *R. V. Morris & Co.;* San Francisco, *B. H. Hebgen Co.;* Seattle, *Sunde & d'Evers Co.;* Vancouver, *Hoffars, Ltd.;* Wilmington (Calif.), *Ets – Hokin & Galvan*

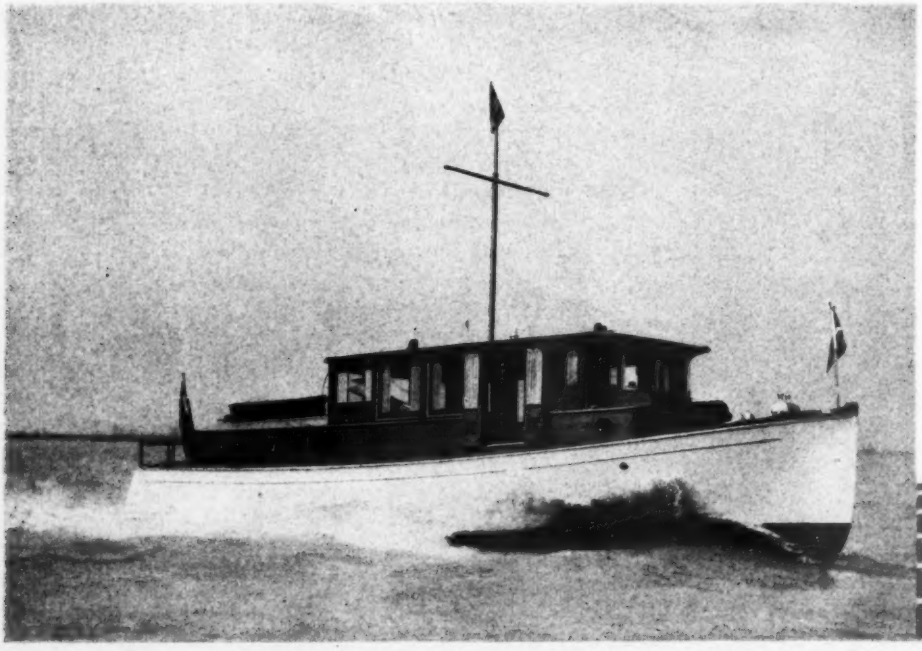
DEALERS WHEREVER BOATS FLOAT

46 FT. SPORT CRUISER



If you want real cruising action—standard speeds up to 20 miles per hour—hull qualities that will weather any storm—cabin luxuries and a spaciousness that just compels enthusiasm—you'll find this Matthews "46" Sport Cruiser the trimmest, keenest craft you ever hoped to have at your command. Forward riding cockpit, berths for four, an extra large after deck provide your family and guests with every comfort and convenience.

38 FT. DAY CRUISER



To share your boat with a party of six, ten or even fifteen guests aboard is often the wish of the genial yachtsman who likes to play host to his friends. The Matthews "38" Day Cruiser with enclosed bridge deck is designed to meet these occasions. Full sleeping and cruising accommodations for two or four are included in the design to successfully serve your overnight needs or an extended cruising trip. With abundant room, standard speeds of 14-15 m.p.h. are provided.

For those whose leisure permits them to follow the sun in its path to the Southland there are still available from stock such attractive Matthews models as the two boats pictured above. Write or wire for particulars and prices. Delay may cause you later disappointment and inconvenience. Why not plan on a winter or summer with one of these husky Matthews at your command?

"Matthews 38"

MATTHEWS "46"

THE MATTHEWS COMPANY

Designers and Builders of Boats of Distinction - - - Since 1890.

304 Bay Side **Port Clinton, Ohio**

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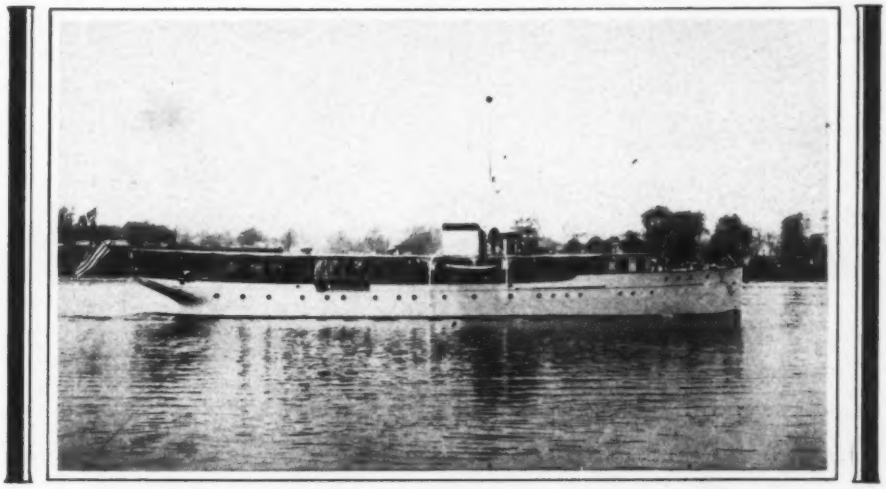
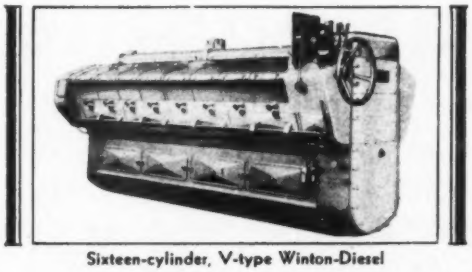


AN EPOCH-MAKING ENGINE FOR FAST DIESEL YACHTS

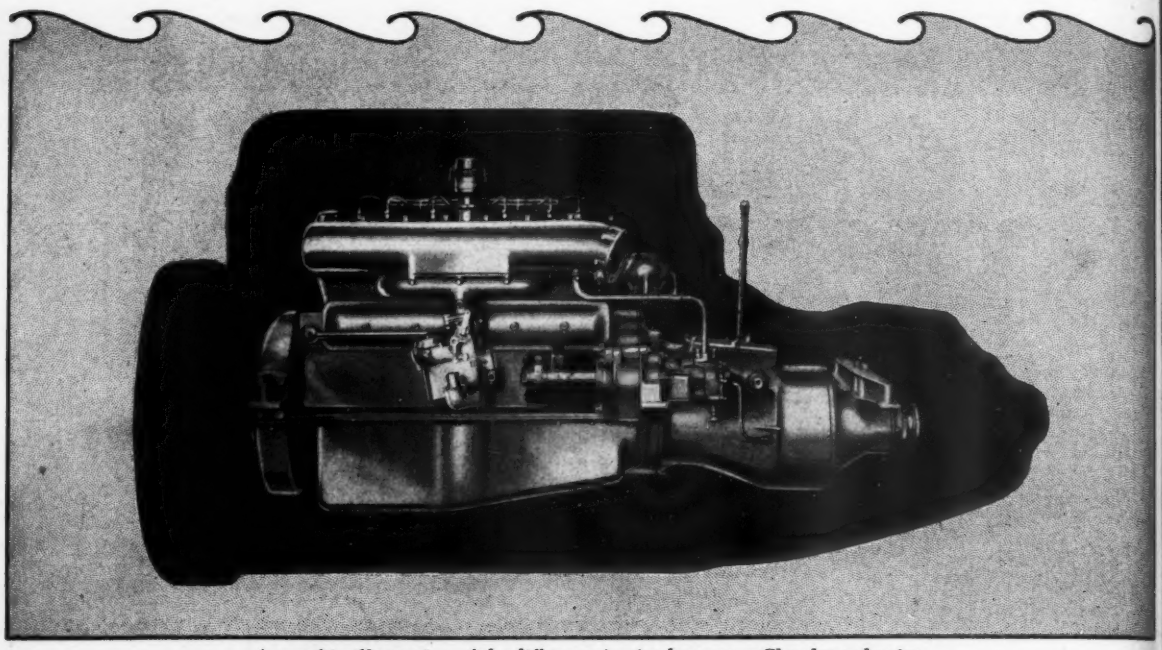


Sixteen-cylinder, V-type Winton-Diesel

SIXTEEN cylinders, V-type—Winton's conception of a suitable engine for the fast Diesel yacht. Compact, perfectly balanced, insuring higher speed and continuous, smooth performance. *Elda*, illustrated above, a recent creation of Cox and Stevens, Inc., is powered with two engines of this type. Length, 138 ft., 11 in. Speed, 20 miles an hour. Owner, Arthur V. Davis. Builders, Defoe Boat and Motor Works. A yacht and power plant that represent an outstanding achievement. Details supplied upon request.

WINTON ENGINE CORPORATION
CLEVELAND, OHIO

WINTON



A graphic illustration of the difference in size between a Chrysler reduction gear engine and the heavy direct drive type developing the same horsepower.

CHRYSLER
reduction gear engines–

provide the most modern type of power plants for cruisers, fishing and work boats — saving money, space and weight. Smoother, more economical in operation than the so-called heavy direct drive engines. Specify a Chrysler power plant for your boat. « « *For further information, address Amplex Manufacturing Company (division of Chrysler Corporation) Detroit, Michigan, or any of the distributors listed below.*

DISTRIBUTORS

NOYES MARINE SALES
Boston, Mass.

MARINE EQUIPMENT & SUPPLY COMPANY, INC., Philadelphia, Pa.

YACHT & MOTOR SALES CORP.
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BOEING AIRCRAFT OF CANADA, LTD.
Vancouver, B. C.

SUTTER BROTHERS, New York, N. Y.

J. N. VERNAM CO., Miami, Fla.

J. H. HUTCHINSON
Alexandria Bay, N. Y.

LECHENGER MARINE COMPANY
Houston, Texas

SEATTLE MARINE SUPPLY CO.
Seattle, Washington

MADDOX ENGINEERING COMPANY
Toronto, Ontario

SERVICE STATIONS

CONSOLIDATED SHIPBUILDING CORPORATION
New York City

WHEELER SHIPYARD
Brooklyn, N. Y.

ROY M. BREWSTER
Bay Shore, L. I., N. Y

Chrysler MARINE ENGINES

CHRYSLER MOTORS PRODUCT

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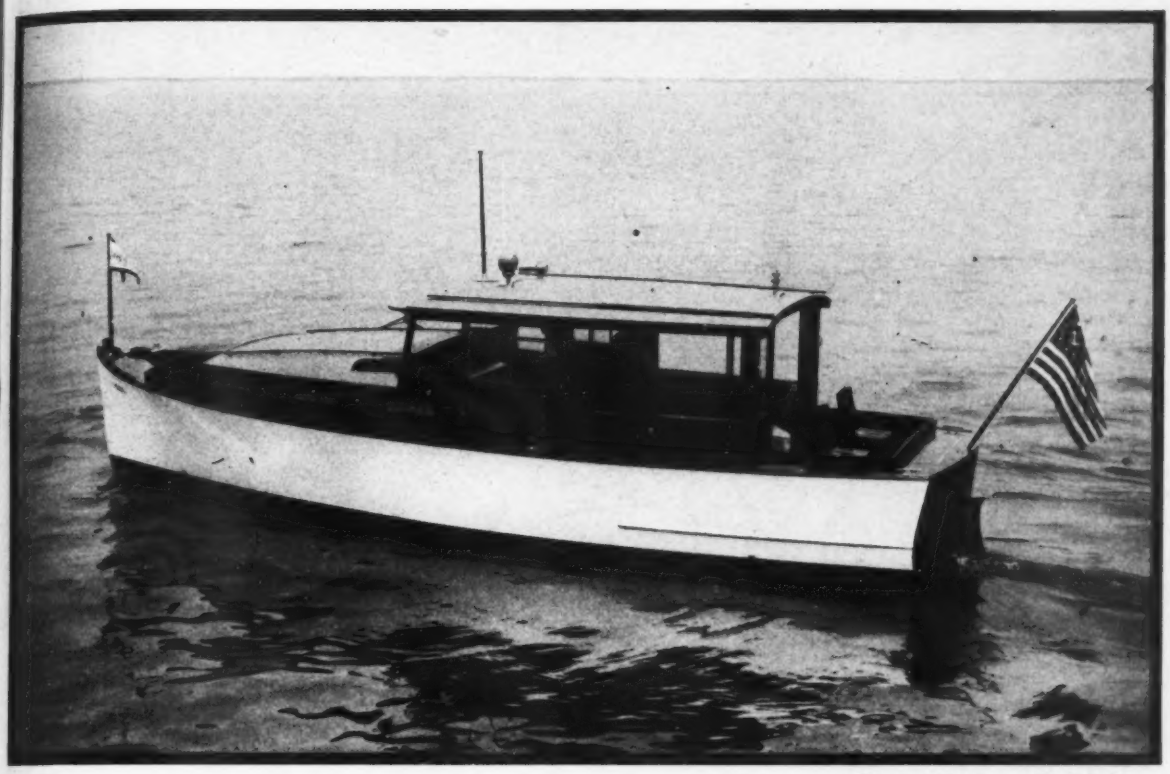


The Elco Thirty-five Foot Cruisette

Built for six-foot sportsmen

VISIT PORT ELCO OR WRITE FOR COMPLETE INFORMATION

You are invited to visit Port Elco, 247 Park Avenue (at 46th Street), New York, where the entire Elco Fleet is now on display. Or, address Dept. MBG, Port Elco, for full particulars and descriptive literature. (Plant and Marine Basin at Bayonne, N. J.)

ELCO CRUISERS ARE ALSO DISPLAYED, SOLD AND SERVICED BY:

PORT ELCO OF BOSTON
126 State Street, Boston, Mass.

WASHINGTON MOTOR BOAT SALES AGENCY
1344 Connecticut Ave.....Washington, D. C.

LUDINGTON AIRCRAFT, Inc.
Atlantic Building.....Philadelphia, Pa.

YACHT & MOTOR SALES CORP.
Wilmington.....California

EASTERN MARINE & YACHT CO.
354 Howard Avenue.....Bridgeport, Conn.

ROY M. BREWSTER
Bay Shore.....Long Island, N. Y.

W. J. H. DYER
East Greenwich.....Rhode Island

FRANK D. HOMAN
Amityville.....Long Island

FULTON MARINE CO.
138-140 East 4th Street.....Cincinnati, Ohio

THE ELCO Thirty-five Foot Cruisette is designed to give its owners space, freedom, room to spread out in while they are afloat. . . . The Cruisette is a single-cabin boat with double-cabin facilities. The after cockpit converts into a completely protected and enclosed cabin with two full-length spring berths. In the stern, the open cockpit, especially designed for fishing, is equipped with swivel chairs, fish and bait boxes, and pole racks. Sides and overhead are entirely clear, permitting playing the gamiest of fish without interference. The bow cockpit, reached from either deck or cabin, seats four. The steering position is comfortably upholstered and completely enclosed in glass. The cabin, with four long, wide, upholstered berths, gives all the elbow room the biggest man could ask. Fully equipped galley and lavatory adjoin. . . . The Cruisette, ever since its introduction, has been one of the most popular models of the Elco Fleet. Its utter comfort, its good speed (15-16 m.p.h.), and its seaworthy and durable construction commend it to experienced sportsmen the world over. In every sort of water and weather, Elco Cruisettes take hundreds of men each year far from the crowded cities, out along the wide, free highways of the water.

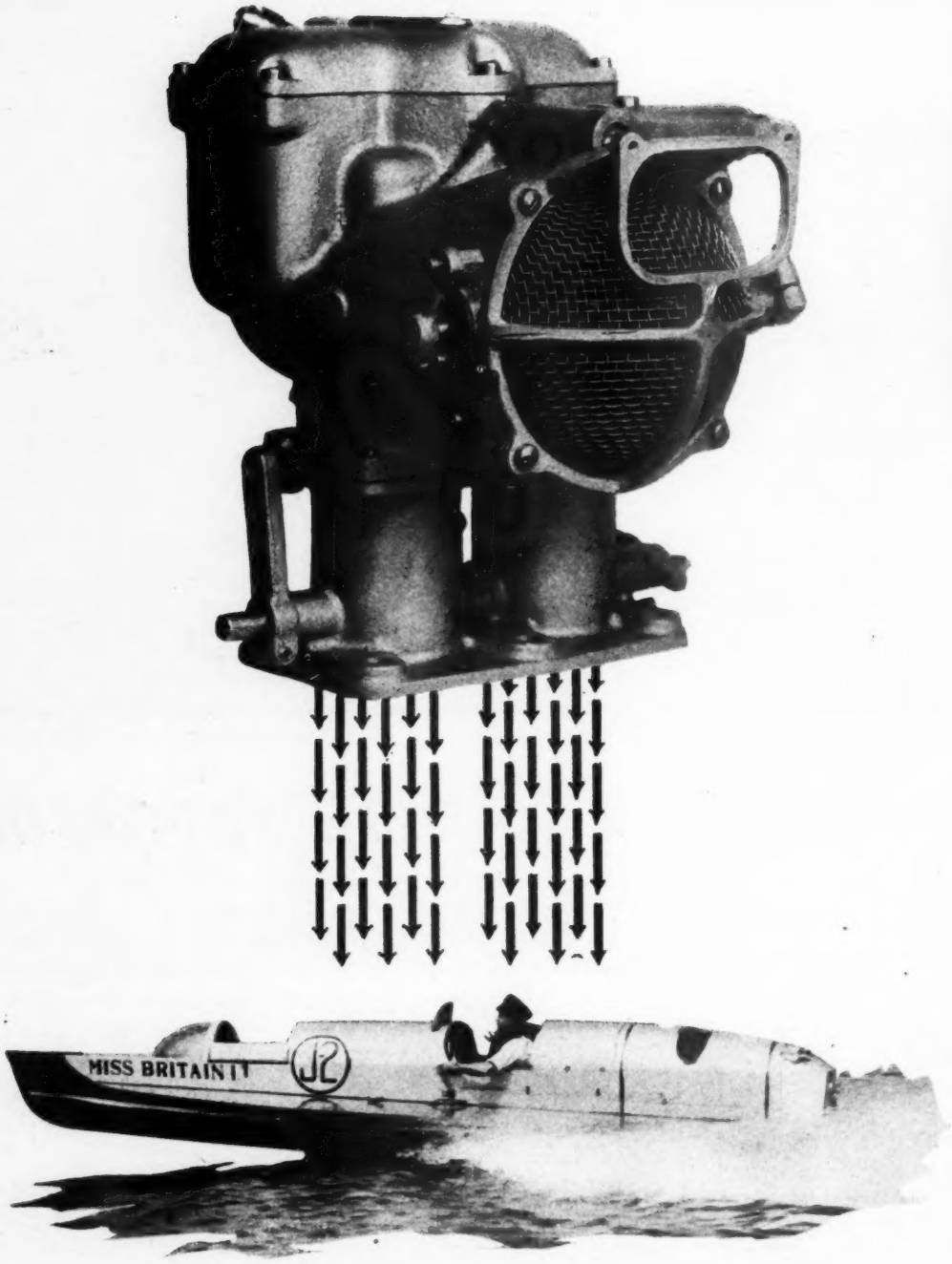
Elco CRUISERS

THE ELCO FLEET

TWENTY-SEVEN FOOT MARINETTE	$ 3,475
THIRTY FOOT VEEDETTE	5,750
THIRTY-FIVE FOOT CRUISETTE	7,750
THIRTY-EIGHT FOOT CRUISER	11,850
FORTY-TWO FOOT CRUISER	17,500
FIFTY FOOT MOTOR YACHT	26,500

(Afloat, Bayonne, N. J.)

(Elco operates a liberal financing plan for those wishing to purchase cruisers out of income.)



AT the Harmsworth Regatta, the Detroit News International Trophy was won by Hubert Scott-Paine's Miss Britain I, equipped with a Scripps engine and Holley Downdraft carburetor.

HOLLEY CARBURETOR COMPANY

DETROIT, MICHIGAN

Advertising index will be found on 3rd last page

Going South *This Winter?*

And what will you do when you get there?

Lots of things, of course. Down there you can just do nothing at all—for a week or so—and thoroughly enjoy it.

And then, when you're all rested up, when you feel more energetic than you have all year, what then?

Will there be a smart, sleek, breathlessly fast Gar Wood at the landing awaiting you? Will you possess the most spirited of all play-time companions? Will you gather new vitality in sun-bathed hours amid the flying brine, explore the moon-paths of tropic night?

Consider now, before you go, what it will mean to find a new vividness of enjoyment, to re-create that play enthusiasm of childhood, to be the social pivot among frankly envious friends.

Why not indulge yourself in something really fine? As a matter of fact, a boat from the hands of the Miss America craftsmen will cost no more than an ordinary craft.

14 NEW MODELS

Open, Enclosed and Convertible

30 to 55 m. p. h.

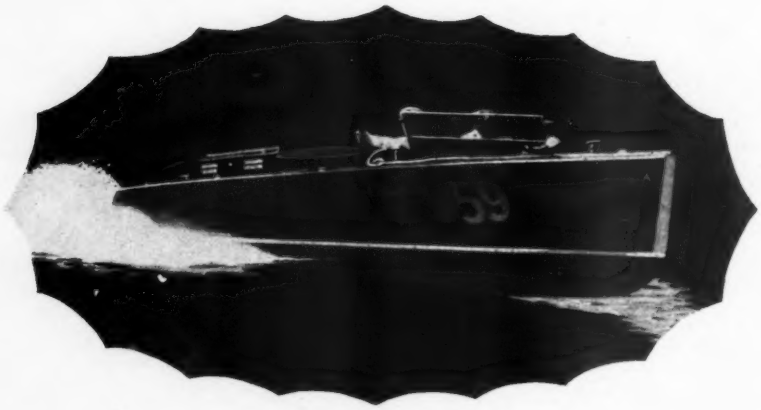
$2,250 to $12,950

GAR WOOD INC.

THE GREATEST NAME IN MOTORBOATING

212 River Road Marysville, Mich.

New York Branch: 1858 Broadway at 61st Street



"THEY WON THEIR RACES"

What more can be said? What more need be said? These four words, "They won their races", tell the Chris-Craft story of regatta supremacy completely. ¶ Thus far this year, 32 famous regatta courses have witnessed the swift flight of Chris-Craft victors. Under the flags of six nations, Chris-Craft owners have out-distanced all competition in every horsepower classification, winning again, as they have for many years the largest number of individual events ever won by a single make of boat. ¶ Deep in the heart of every true yachtsman lies the love for a winner. Drive a Chris-Craft and you drive a champion. See your nearest Chris-Craft merchant today

CHRIS-CRAFT CORPORATION, 394 DETROIT ROAD, ALGONAC, MICHIGAN
New York Direct Factory Branch: 1 West 52nd Street at 5th Avenue

SOME 1930 CHRIS-CRAFT REGATTA VICTORIES

Palm Beach	Florida
Miami Beach	Florida
Havana	Cuba
Potsdam	Germany
Brussels	Belgium
Philadelphia	Pennsylvania
London	England
Paris	France
Trenton	New Jersey
Stony Brook *(Two Regattas)*	Long Island
Torresdale *(Two Regattas)*	Pennsylvania
Saugatuck	Michigan
Portland	Maine
Cape May	New Jersey
Camden	Maine
Newport *(A. P. B. A.)*	Rhode Island
Tacony	Pennsylvania
Lake Arrowhead	California
Buffalo	New York
Crooked Lake	Michigan
Stone Harbor	New Jersey
Bay Shore	Long Island
St. Michaels	Maryland
Red Bank *(Gold Cup Regatta)*	New Jersey
Westport	New York
Chestertown	Maryland
Charlevoix	Michigan
Malletts Bay	Vermont
Ocean City	New Jersey
Annapolis *(President's Cup Regatta)*	Maryland

Chris-Craft

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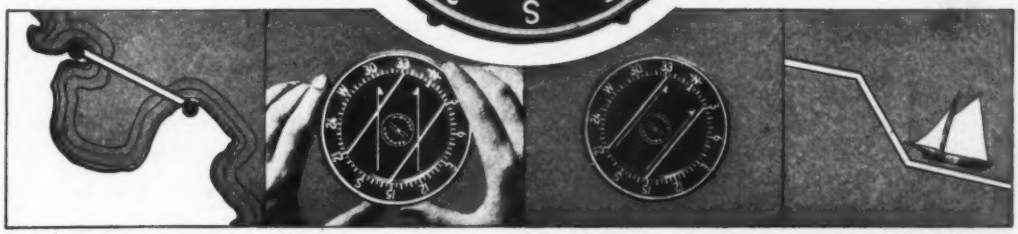
NEW!



PLOT YOUR COURSE — SET YOUR COMPASS — PILOT WITH ALL LINES PARALLEL — RESET COMPASS FOR EASIER TACKING

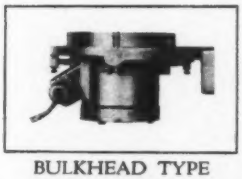
Pioneer Straightway Compass

This new Pioneer compass has practically no period. After the sharpest turn it resumes the correct reading with almost no overswing or oscillation.

With the Pioneer Straightway Compass it is easy to navigate accurately. Merely set the compass circle to the desired heading. Then keep the two sets of lines parallel.

The Pioneer Straightway Compass has no parallax error. From any angle, at any time, you can check the correctness of heading at a glance.

The Pioneer Straightway Compass is easy to set and re-set. You can use it to tack a sail boat most efficiently. Or you can sight landmarks and triangulate your position easily and quickly.



BULKHEAD TYPE

BOX TYPE

BINNACLE TYPE

The superior performance of the Pioneer Straightway Compass is obtained by reducing the weight of the magnetic element to a minimum, increasing the damping factor, yet retaining a strong magnetic control. It is supplied with fixed mount, either horizontal or vertical, for speed boats, and with gimbal mounts as illustrated for all other craft. Completely radium illuminated. Write for full information.

PIONEER INSTRUMENT COMPANY

INCORPORATED · · · DIVISION OF BENDIX AVIATION CORPORATION

754 LEXINGTON AVENUE · · · BROOKLYN NEW YORK

309 DEARBORN BLDG., DEARBORN ✲ BENDIX BUILDING, LOS ANGELES ✲ 15 SPEAR ST., SAN FRANCISCO ✲ 420 W. DOUGLAS ST., WICHITA ✲ 5034 W. 63RD ST., CHICAGO
327 SUSSEX ST., OTTAWA ✲ STERNPLATZ 13 JOHANNISTHAL-BERLIN ✲ GENERAL EUROPEAN REPRESENTATIVE, M. CALDERARA, 11 BIS RUE MONTAIGNE, PARIS

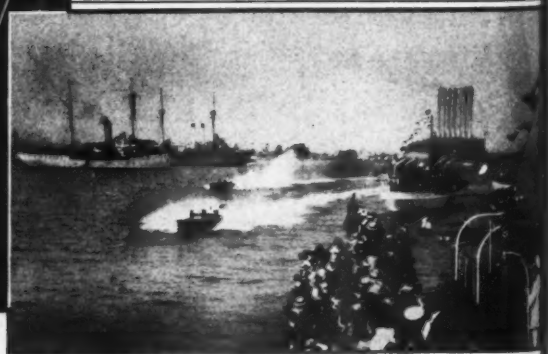
PACKARD POWER
for Miss America IX

GAR WOOD'S HARMSWORTH TROPHY WINNER AGAIN DRIVEN BY PACKARD ENGINES

AGAIN this year and for the third consecutive time, Gar Wood won the Harmsworth Trophy race in a Packard Powered boat — Miss America IX. Also representing the United States in the race with England was the 1929 Trophy winner, Miss America VIII — and she, too, was driven by Packard Marine Engines.

Misses America VI and VII — the latter winner of the Harmsworth Trophy in 1928 — were also powered by Packard. Naturally, Packard is proud to have had a part in the building of Gar Wood's Harmsworth Trophy winners — and joins with power-boating enthusiasts all over the world in paying tribute to America's premier speedboat driver and sportsman extraordinary.

Gar Wood and Orlin Johnson, engineer, in Miss America VIII. In the foreground are the two 1100 H. P. Packard Marine Engines which power this speedy craft.



PACKARD

ASK THE MAN WHO OWNS ON

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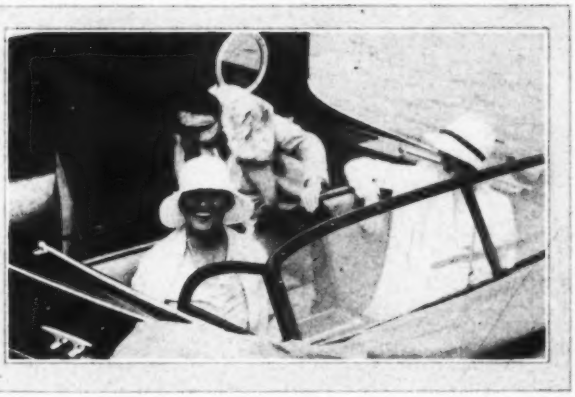

Mary Roberts Rinehart, noted writer, in the cockpit of her 38-foot Chris-Craft cruiser with which she cruised from Washington, D. C., to New Bedford, Mass.

OCTOBER, 1930

Vol. XLVI, No. 4

MOTOR BOATING

Edited by

CHARLES F. CHAPMAN

FIFTY-SEVENTH STREET
AT EIGHTH AVENUE
NEW YORK, N. Y.

CALENDAR OF COMING EVENTS

October 6—Outboard Races at Boston, Mass. Frank Wigglesworth, 20 Brookline Ave., Boston, Mass.

October 11-13—National Outboard Championship, Middletown, Conn. Phelps Ingersoll, Middletown Yacht Club, Middletown, Conn.

October 27—Cruiser and Runabout Conference, Columbia Yacht Club, New York, N. Y.

October 28—Outboard Rules Conference, Columbia Yacht Club, New York, N. Y.

October 29—Gold Cup Contest Board Meeting.

October 30—American Power Boat Association Annual Meeting. Council meeting in forenoon. Delegates meeting in afternoon. Hotel Pennsylvania, New York, N. Y.

November 29—Salton Sea, Calif. A. L. Bobrick, 111 Garey St., Los Angeles, Calif.

December 6-7—Lake Elsinore, Calif. A. L. Bobrick, 111 Garey St., Los Angeles, Calif.

January 16-24, 1931—Annual Motor Boat Show, Grand Central Palace, New York. National Association of Engine and Boat Manufacturers, Ira Hand, Secretary, 420 Lexington Ave., New York, N. Y.

Feb. 7-14, 1931—New England Sportsmen's and Motor Boat Show. Chester I. Campbell, 329 Park Square Bldg., Boston, Mass.

Feb. 21-28, 1931—Philadelphia Sportsmen's and Motor Boat Show. Chester I. Campbell, 329 Park Square Bldg., Boston Mass.

April 24-May 3, 1931—Second Annual National Boat Show, Motor Boat Mart, Chicago Navy Pier, Chicago, Ill.

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WORLD OUTBOARD RECORDS

SEPTEMBER 19, 1930
Including Record No. 91

ONE MILE

Class & Div.	Speed MPH.	Name of Boat	Driver	Motor	Boat	Place of Race	Date
A-I	*27.85	Blue Streak	Margaret Mullin	Lockwood	Elsinore	Balboa, Calif.	Aug. 23-24,'30
A-I	29.411	S33	Adam Cappet	Caille	Century	Bay City, Mich.	Dec. 4, 1929
A-II	30.492	Medico III	D. B. Downing	Caille	Geo. Vis	Detroit River	Aug. 3, 1930
A-II	*28.4	Blue Streak	Chuck Hall	Lockwood	Elsinore	Balboa, Calif.	Dec. 4, 1929
A-III	30.629	Century Midget	Hilda Mueller	Caille	Century	Detroit River	Aug. 23-24,'30
B-I	39.217	Toy	E. Spencer	Johnson	Har's'n & Wythe	Worcester, Mass.	May 29, 1930
B-I	*43.974	Baby Brontosaurus	Billy Lyon	Johnson	Crandall	Balboa, Calif.	Dec. 4, 1929
B-II	41.666		C. Holt	Johnson	Crandall	Stockton, Calif.	May 30, 1930
B-II	*43.94	Crandall Comet	Charles Holt	Johnson	Crandall	Balboa, Calif.	Dec. 4, 1929
B-III	40.54	Apache Kid	Carl Koeffler	Evinrude	Indian Lake	Bay City, Mich.	Aug. 4, 1930
C-I	42.959	Buckaroo	C. J. Nunnely	Johnson	Brobeil	Bay City, Mich.	Aug. 3, 1930
C-I	*43.711	Black Maria V	Mildred Milde	Evinrude	A. Thomson	Newport Beach, Cal.	Oct. 7, 1929
C-II	44.776	Blue Streak	H. Ferguson	Johnson	Elsinore	Stockton, Calif.	May 30, 1930
C-III	44.355	Birmala	G. Cost	Johnson	Indian	Madison, Ind.	July 4, 1930
D-I	43.689	Sleepy	F. Anderson	Johnson	Wilber	Stockton, Calif.	May 30, 1930
D-I	*47.15	Crandall Comet	Billy Lyon	Johnson	Crandall	Balboa, Calif.	Dec. 4, 1929
D-II	46.512	Blue Streak	H. Ferguson	Johnson	Elsinore	Stockton, Calif.	May 30, 1930
D-II	*49.48	Crandall Comet	H. G. Ferguson	Johnson	Crandall	Balboa, Calif.	Dec. 4, 1929
D-III	45.973	Baby Whale	Ross Maddocks	Johnson	Kelley	Worcester, Mass.	May 31, 1930
E-I	*33.75		R. Loynes	Johnson		Balboa, Calif.	Dec. 4, 1929
E-II	37.735		C. Livingston	Elto	Cowden	Stockton, Calif.	May 30, 1930
E-II	*39.353	Wildcat	F. E. Rudolph	Elto	Hooton	Peoria, Ill.	Oct. 15, 1929
F-III	49.723	Oh My VI	R. Pregenzer	Elto	Century	Fox Lake, Ill.	July 28, 1930

FIVE MILES

A-I	28.310	Lady Luck	B. Reinell	Lockwood	Adams & Reinell	American Lake, Cal.	June 29, 1930
A-II	29.85	Rea	K. Dyer	Lockwood	Elliott	Lake Merritt	Sept. 9, 1930
A-III	22.890	Baby Minneford	E. Hauptner	Lockwood	Hauptner	Red Bank, N.J.	Aug. 17, 1930
B-I	37.267	Spencer Special	E. Spencer	Johnson	Spencer	Worcester, Mass	May 30, 1930
B-II	39.045	Miss West Seattle	C. E. McCue	Johnson	Elsinore	L. Sammamish, Wash.	Aug. 24, 1930
B-II	*40.43	Ohkay	H. G. Ferguson	Johnson	Elsinore	Peoria, Ill.	Oct. 15, 1929
B-III	37.685	Michigan Kid	J. Wood	Johnson	Brobeil	Red Bank, N. J.	Aug. 17, 1930
C-I	42.795	Eight Ball	G. K. Wilson	Johnson	Wilson	L. Sammamish, Wash.	Aug. 24, 1930
C-II	42.614	Miss Tacoma	Roy Craig	Johnson	Conner	L. Sammamish, Wash.	Aug. 24, 1930
C-III	42.056	Birmala	G. Cost	Johnson	Indian	Madison, Ind.	July 4, 1930
D-I	43.269	N-733	G. P. Ellsworth	Johnson	Penn Yan	Geneva, N. Y.	Aug. 22, 1930
D-II	*45.34	Blue Streak	H. G. Ferguson	Johnson	Elsinore	Salton Sea, Calif.	Dec. 15, 1929
D-II	44.887	Miss Gustine	M. Azevedo	Johnson	Elsinore	Lake Lucerne, Calif.	July 4, 1930
D-III	42.425	Question No. 2	B. F. Risley Jr.	Johnson	Hurricane	Red Bank, N. J.	Aug. 17, 1930
E-I	38.759	Allah Bye	Don Steans	Johnson	Don Steans	Lake Elsinore	Aug. 17, 1930
E-II	*40.36	Ludington	J. Dunnell	Johnson	Ludington	Worcester, Mass.	May 30, 1929
F-I	40.487	Miss Pasadena	N. DeMark	Johnson	F. J. Pierce	Lake Elsinore	Aug. 17, 1930
F-II	43.247	Deke	Stewart Nunneley	Johnson	Brobeil	Red Bank, N. J.	Aug. 17, 1930
F-III	43.505	Baby Mona III	C. Mason	Johnson	Kelley	Red Bank, N. J.	Aug. 17, 1930

TEN MILES

B-II	39.336	Miss West Seattle	C. E. McCue	Johnson	Elsinore	L. Sammamish, Wash.	Aug. 24, 1930
C-I	*40.089	Miss Genn III	R. Cuppells	Evinrude	Al Smith	White Rock, Texas	Sept. 8, 1929
C-II	42.734	Miss Tacoma	Roy Craig	Johnson	Conner	L. Sammamish, Wash.	Aug. 24, 1930
D-I	*47.36	I'm Alone	E. Widegren	Johnson	Kelley	Oyster Bay, N. Y.	Sept. 29, 1929
D-II	*44.12	Blue Streak IV	H. G. Ferguson	Johnson	Elsinore	Lake Elsinore, Cal.	Sept. 22, 1929
D-II	41.143	Los Ang. Olympia	F. H. Gilbert	Johnson	Crandall	Lake Elsinore	Aug. 17, 1930
E-II	40.449	Black Maria	Al Thomson	Johnson	Elsinore	Lake Elsinore	Aug. 17, 1930

*Record made under old rules with no restrictions on boat weights. These records to stand until December 31, 1930 unless broken by boats racing under 1930 rules.

Records are allowed as follows: In Division I, 1 mile and 5 miles, Classes A, B, C, D, E and F; in Division II and III, 1 mile, 5 miles and 10 miles, Classes A, B, C, D, E and F. All records must be made at a regatta sanctioned by the American Power Boat Association or Mississippi Valley Power Boat Association approved by a National Outboard Referee and at least one member of the National Outboard Racing Commission. Records must be made on a one mile or a 2½-mile course. Only stock motors may be used and no one connected with the outboard industry will be awarded a record.

National Outboard Championships will be decided in 1930 at Middletown, Connecticut, on October 11, 12 and 13. Events will be held in Division II and Division III, Classes A, B, C, D, E and F.

The members of the National Outboard Racing Commission are as follows: C. F. Chapman, 959 Eighth Avenue, New York, N. Y.; A. L. Bobrick, 111 So. Garey St., Los Angeles, Calif.; George O. Hoehn, 201 North Wells St., Chicago, Ill.; A. T. Griffith, Hippodrome Bldg., Peoria, Ill.; Ray Lechenger, Post Dispatch Bldg., Houston, Texas.

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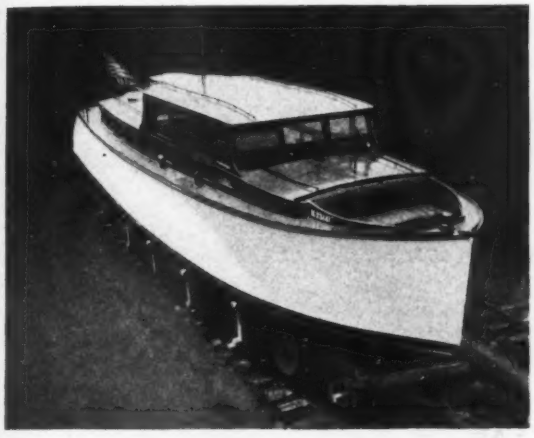

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Although the Huckins family has been successfully connected with Yachts and Shipbuilding since 1639, this is of no moment as compared to the successful performance of the FAIRFORM FLYER.

M. Rosenfeld

MR. AND MRS. HUBERT SCOTT-PAINE OF ENGLAND AT THE DETROIT REGATTA

Mr. Scott-Paine brought his 5½-liter racer Miss Britain I to this country and won the International Trophy offered for this class. Miss Britain, while built in England, was powered with an American motor—a 135 horsepower Scripps

OCTOBER MOTOR BOATING 1930

M. Rosenfeld

Captain Edward Heard, skipper of Sir Thomas Lipton's challenger, Shamrock V

ENTERPRISE KEEPS THE CUP

American Yacht Wins Four Straight Heats. Fleet of Five Hundred Motor Yachts Present Beautiful Spectacle at Newport Regatta

WELL, Mr. Editor, your wire to file my story about the races caught me all aback, as I have been so busy experting up here in Newport with all the yacht experts that I have forgotten the passage of time. I think I'd better start in with something interesting.

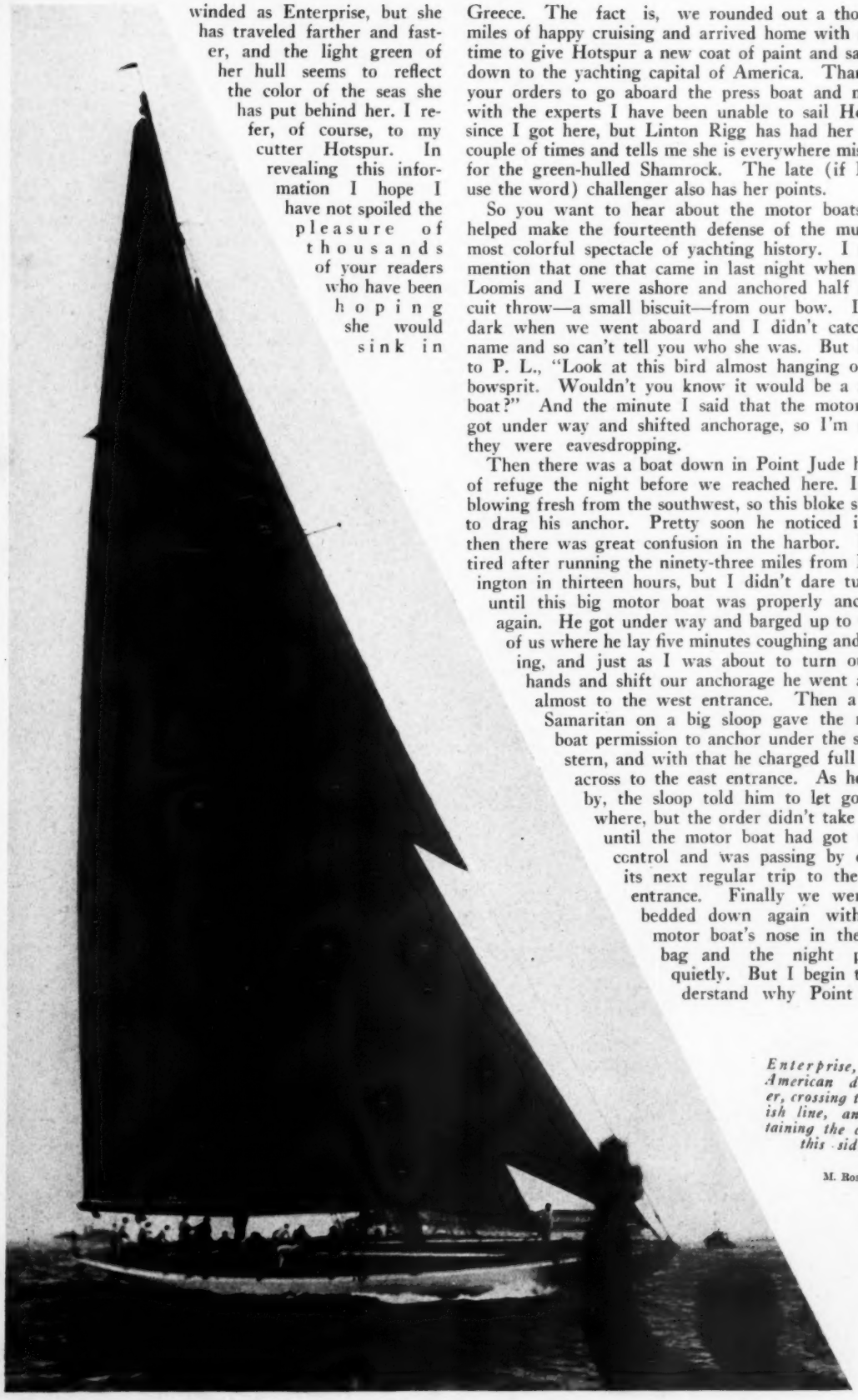
If you can take my word for it there are two very fine yachts here among the two or three hundred that make Newport harbor a menace to jay-rowers. One is that lovely white sloop with tall silver spar above decks and what the newspaper writers are prone to call mechanical devices below decks—in a word, Enterprise. At the moment of writing she is three down and one to go in her pastime of retaining America's cup in American waters. She also won the fourth and concluding race and kept the famous cup at home.

The other boat that attracts my eye every time I come down to the harbor or search for her in the open sea is also a single-sticker, but her stick is old-fashioned, of varnished wood. She is, perhaps, not quite as close-

winded as Enterprise, but she has traveled farther and faster, and the light green of her hull seems to reflect the color of the seas she has put behind her. I refer, of course, to my cutter Hotspur. In revealing this information I hope I have not spoiled the pleasure of thousands of your readers who have been hoping she would sink in Greece. The fact is, we rounded out a thousand miles of happy cruising and arrived home with ample time to give Hotspur a new coat of paint and sail her down to the yachting capital of America. Thanks to your orders to go aboard the press boat and mingle with the experts I have been unable to sail Hotspur since I got here, but Linton Rigg has had her out a couple of times and tells me she is everywhere mistaken for the green-hulled Shamrock. The late (if I may use the word) challenger also has her points.

So you want to hear about the motor boats that helped make the fourteenth defense of the mug the most colorful spectacle of yachting history. I might mention that one that came in last night when Mrs. Loomis and I were ashore and anchored half a biscuit throw—a small biscuit—from our bow. It was dark when we went aboard and I didn't catch her name and so can't tell you who she was. But I said to P. L., "Look at this bird almost hanging on our bowsprit. Wouldn't you know it would be a motor boat?" And the minute I said that the motor boat got under way and shifted anchorage, so I'm afraid they were eavesdropping.

Then there was a boat down in Point Jude harbor of refuge the night before we reached here. It was blowing fresh from the southwest, so this bloke started to drag his anchor. Pretty soon he noticed it and then there was great confusion in the harbor. I was tired after running the ninety-three miles from Huntington in thirteen hours, but I didn't dare turn in until this big motor boat was properly anchored again. He got under way and barged up to windof us where he lay five minutes coughing and puffing, and just as I was about to turn out all hands and shift our anchorage he went astern almost to the west entrance. Then a good Samaritan on a big sloop gave the motor boat permission to anchor under the sloop's stern, and with that he charged full speed across to the east entrance. As he shot by, the sloop told him to let go anywhere, but the order didn't take effect until the motor boat had got under control and was passing by on its its next regular trip to the west entrance. Finally we were all bedded down again with the motor boat's nose in the feed bag and the night passed quietly. But I begin to understand why Point Jude



Enterprise, the American defender, crossing the finish line, and retaining the cup on this side

M. Rosenfeld

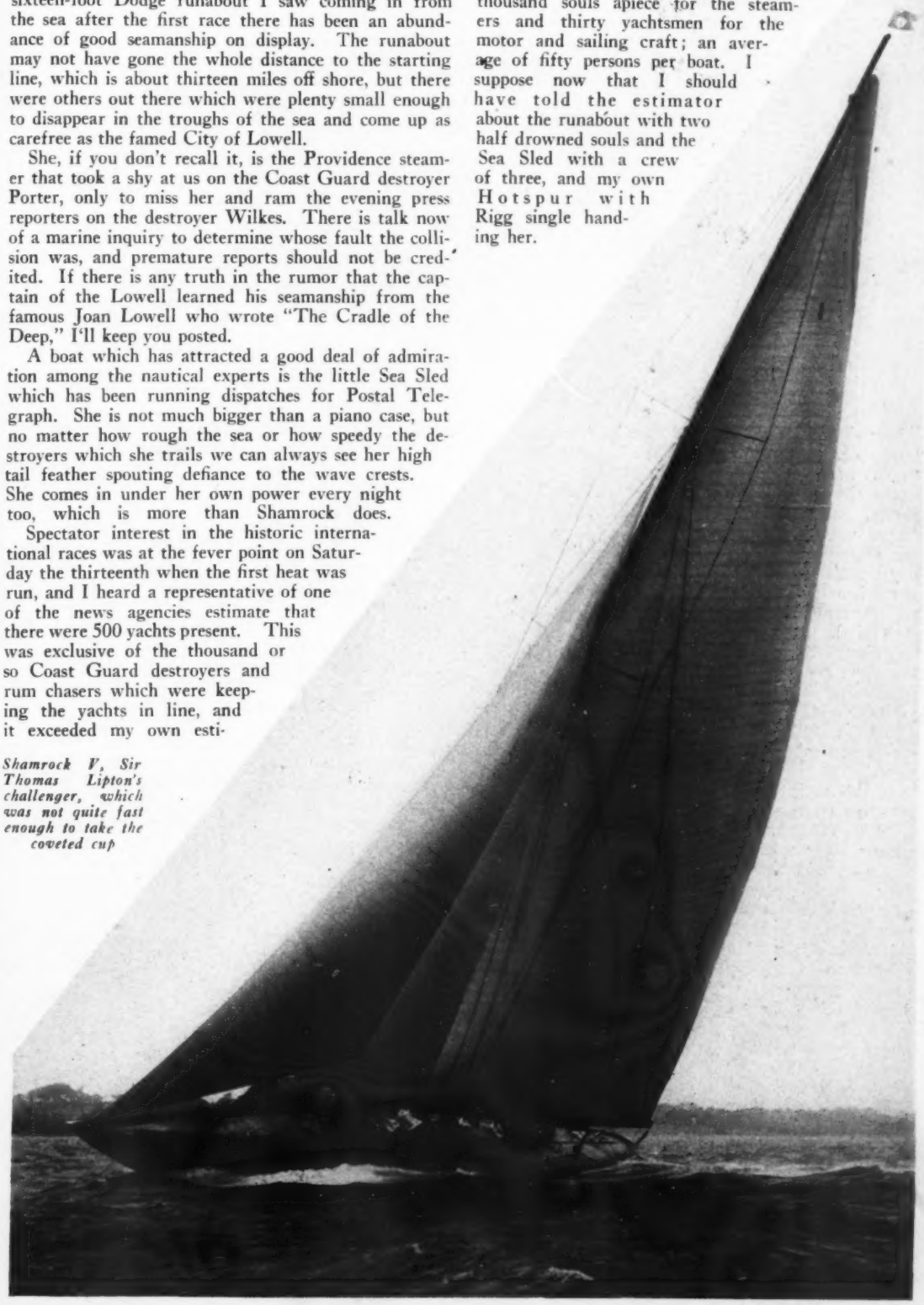
is considered a dangerous place by boatmen.

Not to bang the anvil any longer, I may as well tell you that ninety-nine of every hundred motor boats down here are as well handled as any yachtsman could handle them. From the big Nourmahal down to a sixteen-foot Dodge runabout I saw coming in from the sea after the first race there has been an abundance of good seamanship on display. The runabout may not have gone the whole distance to the starting line, which is about thirteen miles off shore, but there were others out there which were plenty small enough to disappear in the troughs of the sea and come up as carefree as the famed City of Lowell.

She, if you don't recall it, is the Providence steamer that took a shy at us on the Coast Guard destroyer Porter, only to miss her and ram the evening press reporters on the destroyer Wilkes. There is talk now of a marine inquiry to determine whose fault the collision was, and premature reports should not be credited. If there is any truth in the rumor that the captain of the Lowell learned his seamanship from the famous Joan Lowell who wrote "The Cradle of the Deep," I'll keep you posted.

A boat which has attracted a good deal of admiration among the nautical experts is the little Sea Sled which has been running dispatches for Postal Telegraph. She is not much bigger than a piano case, but no matter how rough the sea or how speedy the destroyers which she trails we can always see her high tail feather spouting defiance to the wave crests. She comes in under her own power every night too, which is more than Shamrock does.

Spectator interest in the historic international races was at the fever point on Saturday the thirteenth when the first heat was run, and I heard a representative of one of the news agencies estimate that there were 500 yachts present. This was exclusive of the thousand or so Coast Guard destroyers and rum chasers which were keeping the yachts in line, and it exceeded my own estimate by about 200. But I didn't say anything even when the expert put the total number of human souls and motor boatmen present at 50,000. His arithmetic was simple—500 boats, including excursion steamers; a thousand souls apiece for the steamers and thirty yachtsmen for the motor and sailing craft; an average of fifty persons per boat. I suppose now that I should have told the estimator about the runabout with two half drowned souls and the Sea Sled with a crew of three, and my own Hotspur with Rigg single handing her.



Shamrock V, Sir Thomas Lipton's challenger, which was not quite fast enough to take the coveted cup

International News

A fleet of at least 500 motor yachts followed the races between Shamrock and Enterprise

Those three exceptions would have pulled the grand total down to 49,916 quicker than it takes Shamrock to part her main halliard.

On the second day the fleet had dwindled considerably, but even then it was possible, for a long-legged man to hop from Newport to Jamestown on the mast trucks of the assembled fleet. Fog yesterday morning kept most of the yachts in port, but today when the wind came out of the southwest they were out more than a hundred strong to watch the start of the third race.

This was the best day we have had, with enough breeze to promise a pretty race and with Shamrock starting out as if she meant business. Then came the regrettable accident to her halliard, and the way the spectator fleet diminished was a caution. Not more than six yachts and sixty patrol boats stayed to see the finish.

If this article, which you say must be from the spectator viewpoint, had to be written tomorrow instead of today there might be no story to tell, because the yachts from the East are tearing home this afternoon with a sou'wester under their tail and the Long Island Sound craft are only waiting for a shift to east'ard to belt it down to Lloyd's harbor and points west. That's what I'm waiting for, anyway, and if this doesn't appear in print too late you might advertise that I'm looking for a good hand to sail along with me.

Just for the sake of the record I'd like to put it down here that Enterprise won the fourteenth series for America's cup. The cup was in the bag, as the nautical experts say, when she crossed the line three minutes in the lead on the first historic race of the series. I didn't want to believe it then but I had to on the second day when the mechanical sloop romped home nearly ten minutes in the lead. Today's accident clinched the series and tomorrow's race will wind it up, and then it will be four straight and the most decisive defense of the cup in many years.

A few of the pseudo-experts on the destroyer Porter have been making fun of Enterprise's sliding foot boom and her winches below decks, along with the shunt dynamometer that tells at a glance the pressure on the backstays. They tell their daily readers that the defender is no better than a steam yacht and that pitting her against a good, old-fashioned sloop like Shamrock is just too bad. Well, these pseudos may as well go back to reporting tennis and ping pong golf. They, or somebody who looked just like them are the head-shakers who disapproved of the Marconi rig a few years ago and asked what had happened to yachtsmen that they put such hideous, unfair, and unpractical rigs in their boats. They are also the descendants of the experts who disapproved of gasoline marine engines and said we would never find anything to take the place of steam.

Enterprise could have won her first race without a single modern improvement. She sailed down the course under spinnaker and balloon jib which are handled pretty much in the old-fashioned way, and she came home on a very close reach and only had to exhibit her quickness in stays twice at the end of the reach. Concede her three seconds in coming about and the mechanical devices still do not account for her victory, since Shamrock footed it home without tacking at all, and finished three minutes astern.

Capt. E. R. Corson, Lieut C. C. Hudson and Lieut. C. W. M. Vereker of His Majesty's gunboat Helitrope represented Great Britain

The fact is, Enter-

(*Continued on page* 80)

WITH THE AMERICA'S CUP BOATS

Photographs by M. Rosenfeld

Above: Harold S. Vanderbilt and Charles A. Havemeyer, owners and helmsmen of the defender Enterprise

Below: The race committee of the New York Yacht Club under whose auspices the races were held: Colgate Hoyt, Edmund Lang, Philip Mallory

Above: Richard De Boardman and Clinton H. Crane, designer of the cup candidate Weetamoe

At the right, G. B. Lambert, owner of Vanitie; Secretary of the Navy, Charles Francis Adams, who sailed Yankee, and Clinton H. Crane, designer of Weetamoe

THE WANDERER—OF LIVERPOOL

By JOHN MASEFIELD

POET LAUREATE OF ENGLAND

Illustrations by Gordon Grant

PART II

THE storm was by much the worst known in the Channel since the great storm of 1863. There were many shipping casualties along our coasts. On the day of the Wanderer's disaster, two hundred ships sheltered in Holyhead and five big sailing-ships put back into Liverpool.

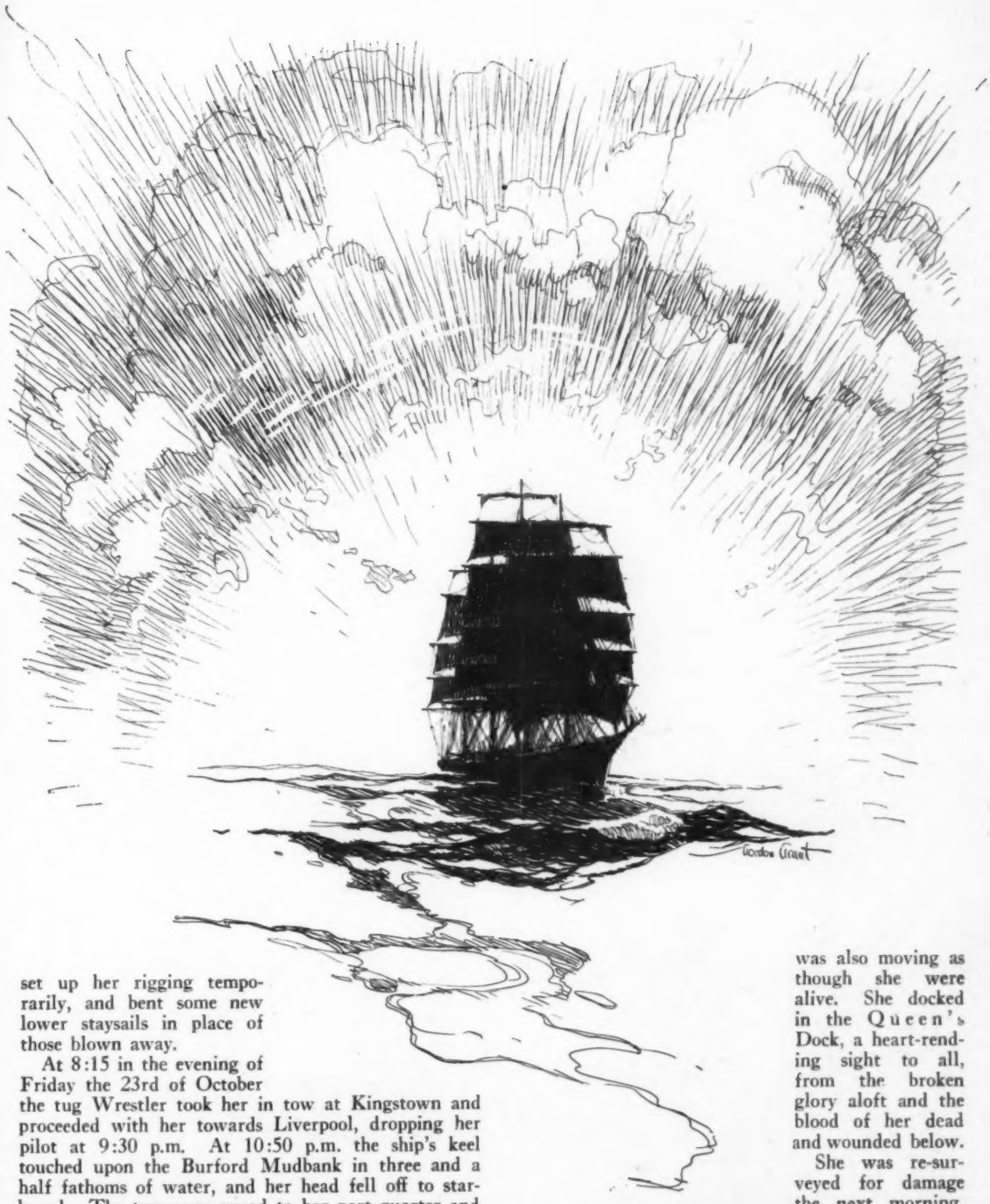
It is said that the Wrestler just managed to reach Holyhead, where she reported leaving the Wanderer at 7:30 p.m. off South Arklow. At midnight on the 20th she brought the R. D. Rice into Holyhead; she then proceeded to Kingstown to fetch the Wanderer home.

The Wanderer, in her shattered condition of wreck aloft, was berthed close to the East Pier at Kingstown. She was by much the biggest and most splendid ship that had ever lain there. Her sudden and splendid appearance in all the misery of her wreck drew large numbers of people to the dock to see her.

The Coroner of South Dublin did not consider it necessary to hold an inquest on Captain Currie, whose body was taken ashore, attended by the ship's officers and apprentices, and buried in the Protestant cemetery at Mount Jerome. He is still remembered among old sailors as a very fine man and seaman. Those who served under him never mention him without praise.

The ship was surveyed for damage where she lay at anchor. Her decks and hull were sound. Her fore, main and mizzen topgallant masts with all their yards were gone; her spanker gaff was gone; her jigger masthead was damaged; most of her sails were blown to rags; her rigging was loose and some of it carried away. The worst damage had been done on the starboard (the lee) side of the bridge, about the main-rigging. Nine of her fourteen main chain-plates had been broken or bent. Flying wreck had smashed parts of the charthouse and saloon skylight. The bridge-rail had been carried away. The bulwark plating on the starboard side of the bridge house was sprung; the fastenings of the fair leads for the chains of the steering gear on the after end of the bridge were carried away. Yards and fittings aloft were badly damaged. The rudder, the boats and the anchors were unharmed.

The Wanderer remained for three and a half days in Kingstown while her crew, under George Shearer,



set up her rigging temporarily, and bent some new lower staysails in place of those blown away.

At 8:15 in the evening of Friday the 23rd of October the tug Wrestler took her in tow at Kingstown and proceeded with her towards Liverpool, dropping her pilot at 9:30 p.m. At 10:50 p.m. the ship's keel touched upon the Burford Mudbank in three and a half fathoms of water, and her head fell off to starboard. The tug came round to her port quarter and swung her off the mud into the fairway. The ship was not strained, and her rudder was unharmed. They sounded the wells and proceeded. She reached the Mersey in the evening of the 24th, but could not dock, owing to fog.

In the morning of Sunday, the 25th of October, in fine, bright weather, she left her anchorage, an image of such glory and beauty in desolation as I shall never forget. Her broken spars had been secured in the swifters of the lower rigging. The rags of her sails fluttering from her yards gleamed in the sun. I have seen much beauty, but she was the most beautiful thing. She was so splendid, and so distressed; she was also moving as though she were alive. She docked in the Queen's Dock, a heart-rending sight to all, from the broken glory aloft and the blood of her dead and wounded below.

She was re-surveyed for damage the next morning, when it was found that the main upper topsail yard had been bent and its parrel broken, and the crane of the main lower topsail yard smashed across. These yards had to come down and a new upper topsail yard fitted. Three new top-gallant masts and seven new yards had to be sent aloft. The jigger-mast was unstepped, its topmast straightened, and the mast refitted. The starboard iron bulwark on the bridge had to be repaired, and a new teak rail fitted on that side. Nine of the starboard main chain plates had to be renewed. Twenty-four planks of the bridge deck and three of the main deck abaft the mizzen mast had to be replaced. The chart house and skylights were

repaired. Most of the standing rigging below the topmast heads had to be re-served and much of it refitted. All the standing rigging above the topmasts had to be renewed. Six sails were renewed; the others could be repaired. About half of the total running rigging had to be replaced. The topsides and the bulwarks had to be repainted.

It had been thought on board that the topgallant masts had fallen through some defect of the new wire backstays at the mastheads. The shore surveyors thought that the lanyard screws had slacked back, so as to shear through the small wire ropes passed through the screw-barrels, and that then the backstays had drawn. In the resetting of the rigging the screws were secured by two 1¾ inch wire ropes passed through double eyes at each barrel. The Wanderer was to go through some severe tests and one exceptional test in the course of her career, but only lost one other spar.

Mr. Potter was inclined to think that the Wanderer had been overmasted. He caused the new fore topgallant mast to be shorter than the first and did not again cross a fore sky-sail yard. He is said to have shortened the new main topgallant mast by six, eight or twelve feet; various measurements are given, but some think that this was because there was no spar to be had in Liverpool so long as the old one. After the refitting, she was still a magnificent ship, but sailors were proud of being in lofty ships, and liked their skysail yards. Some of the Wanderers felt that the loss of the fore skysail and the shortening of the main skysail pole had taken from the ship's appearance.

Most of the original crew were paid off on the 29th of October; the rest (fourteen in all) stayed by her till the 16th of November. It was thought that Mr. Shearer would be given the command of the ship, but he was seriously ill as the result of the disastrous voyage and was unable to go to sea for many weeks to come. He never again went to sea in a sailing ship. He was soon given the command of a steamer. He had the name of a fine and fearless seaman; those who sailed with him cherish his memory.

Captain John Brander was at that time in Liverpool. He had first gone to sea from the Salthouse Dock, in May, 1861, in the full-rigged ship Valdivia, which crossed a main skysail yard eighteen feet long, although she was only of 395 tons. She was owned by Messrs. Nicholson & Macgill in the then thriving China trade. He had been an officer in the Sagar, Calypso, Bolivia and Benmore and master of the Casa Blanca, Oriente, Kylemore and St. Magnus. He had at that time newly arrived in Liverpool from Buchapero, in Southern Chili, where his ship, the St. Magnus, owned by Messrs. Rankin & Gilmour, of South Castle Street, had been wrecked in a norther, and himself nearly killed. His owners recommended him to go to Mr. Potter to ask for the command of that fine new ship of theirs in the Queen's Dock. On going down to Mr. Potter, he was given the command of the Wanderer, then lying in the Queen's Dock, almost ready for sea. Mr. Potter took Captain Brander to the

further side of the dock so that he might have a good look at the ship. "There," he said. "Do you think that that ship's over-masted?" Captain Brander said, "No, I don't think she is."

Most of the sailors who knew the Wanderer felt that she was stiff enough to stand far more sail than her generous plan provided.

THE FIRST VOYAGE

Captain, John Brander.
Chief Mate, C. Kain,
Second Mate, T. Baker,
Third Mate, D. Jones,
Boatswain, D. Loughran.

The four apprentices were those who had been in her from the first. She carried the same steward, a lame Maltese, and the same negro cook.

Sailed from Liverpool, 21st November, 1891, with coal.

Arrived San Francisco, 14th March, 1892.

Lay at Sausalito for a time.

Sailed from San Francisco, 18th August, 1892, with wheat.

Arrived Queenstown, 6th December, 1892.

Lay in Monkstown Bay for a time.

Left Queenstown, 25th January, 1893.

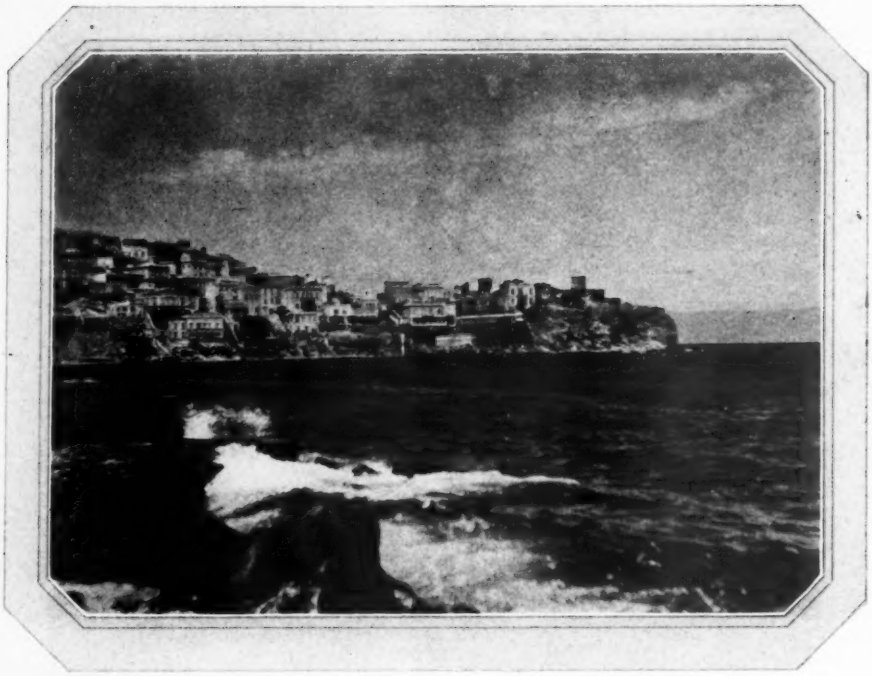
Arrived at Liverpool, 28th January, 1893.

On her first putting-forth on this voyage the well-known Liverpool tug, the Sarah Jolliffe, J. D. Ryan, master, took her down the Irish Sea, and left her off the Tuskar at half-past ten the next night, in light, fine northerly weather.

Her disastrous first sailing, and the fact that she had killed her captain, had given her a bad name. Many superstitious seafaring people said that she would come to no good at sea, and that if she ever reached San Francisco it would be by miracle after some fresh disaster. However, she made a good passage of 113 days from the Tuskar to the Golden Gate; the average passage being 130 days. It was the fastest passage with the exception of that of the Alcedo, 104 days, made during that Cape Horn summer.

During this voyage, the crew came to believe that the ship was haunted by the ghost of Captain Currie. The sailors were perhaps quite ready to believe this, for the tale of the Captain's death had made a deep impression among Liverpool seafaring men. The apprentices did much to spread the belief by working on the nerves of an unpopular sailor. When this man was alone, on look-out, on the forecastle head, they used to creep undefneath him and smite three knocks with a handspike below his feet. Once, by wasting a great many phosphorous matches, one of the boys made his face and hands luminous, and crept into the forecastle in the dark as a spirit. Most of the crew left the ship in San Francisco; those who joined her later were less prone to belief. The eldest apprentice was promoted to be third mate, and the other three grew older. I have not heard that men thought the ship haunted after this first voyage.

While the Wanderer was at sea, about one thousand miles from the Golden Gate, all hands on board had reason to believe that her cargo of coal was on fire. The 'tween-decks was insufferably hot and daily was growing hotter. However, the ship was made beautiful for her entry into port, and came in like a queen and anchored. The next day the sailmaker, working in the forward 'tween decks, gave the alarm of the ship being on fire. When the forehatch was lifted he saw wisps of smoke rise. On the alarm being given, the ship was tested for fire. A drill was sent down into the coal at the main hatch; it came up red-hot. The ship was moved to the Green Street Wharf to have the benefit of fire engines. When some of the upper coal was shifted, flames burst out. The men dropped their shovels and fled, but Captain Brander induced them to *(Continued on page 56)*



Syra was formerly the principal harbor of the Aegean, but now Piraeus attracts all but the island commerce

FIRST TASTE OF AEGEAN WEATHER

Hotspur, Passing Through Zea Channel, Finds That the Coast Pilot Means What It Says and That a Little Carelessness Causes a Lot of Grief

By ALFRED F. LOOMIS

Author of The Cruise of the Hippocampus, Fair Winds in the Far Baltic, Etc.

PART III

I THINK I understand now why the ancient Greeks chose the headland known as Sunion for their temple to Poseidon, god of the ocean. Sunion juts south at the eastern entrance to the Gulf of Athens and is the place of departure for craft bound northeast through the Doro Channel. Hence (if you will read on and make the acquaintance of the Doro Channel), no better site could have been selected for last-minute sacrifices or first thank-offerings to the jealous god. P. L. and I, starting our island cruise in Hotspur, visited the magnificent ruins of Poseidon's temple, but neglected to slay the sacrificial lamb. And who shall say that the mighty earth-shaker is less susceptible to irreverence than he was 2,500 years ago?

Our departure from Turcolimani, the yacht harbor of Athens, was made on a morning as calm as most June mornings in the Gulf of Athens. For two hours while kaikis drifted aimlessly on the blue, glassy sea, we ran south-southeast under power. Then, passing inside a little island known as Phleva, we picked up a gentle southerly, shut off the motor and set mainsail and balloon jib.

I now began a bout of sail drill most amazing to P. L., who does not fully subscribe to the theory that a man owes it to a good boat to sail her for all she is worth. The wind being on the starboard bow, the balloon jib was not employed in its primary capacity, but as a Genoa, sheeted flat, and it occurred to me to compare it with the ordinary headsails in close reaching. So, having determined the closest course and estimated the speed under the balloon jib, I lowered it and set instead the jib and jumbo. We carried on under these for fifteen minutes or so until I was able to judge of their performance, and then shifted again to the ballooner. It pleased me to learn that with this big sail in a light air we could sail almost as closely to the wind as with the working headsails and at nearly double our speed. We carried it for three hours, during which time we wore twice (finding it easier with a short crew to jibe than to come about) and made a good ten miles. Then at

The street of the theater, recently excavated at Delos. Here 2500 years ago was a city of nearly 100,000 inhabitants

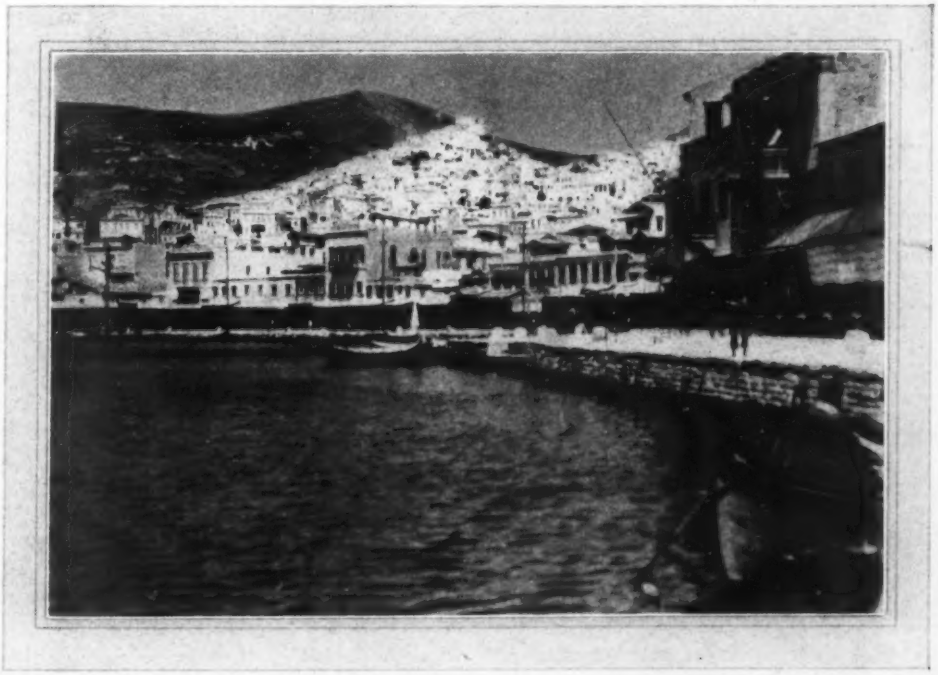
four P.M. the wind freshened and we took in the ballooner and were well content with the ordinary headsails.

Our destination for the night was Sunion and we reached there before six and anchored in a little harbor not far from a stone slipway which was once used by the galleys and triremes of ancient Greece. In the last few minutes of the run we had sailed inside Gaidaro Island, hugging its shore to avoid an unmarked rock in mid-channel, and heeling smartly to the puffs of air down its steep face. Then we had been becalmed and had resorted to the faithful motor to take us to the harbor.

Once the hook was down in hard sand and weed in three fathoms of water I was, as always, discontented with my choice of anchorage. Though the breeze which presently sprang up was northeast and off the land, the little harbor is open to the southwest, and swells from this direction seemed to presage a shift of wind. Another anchor run out into deeper water eased my feelings and the next order of business was to row ashore and see the temple.

For the first time, then, we appreciated to the full the pleasure of sightseeing without car or guide. We had the headland and its lovely temple ruins to ourselves, and the sun sank and the moon rose, and from the deck of Hotspur we still enjoyed the snow-white marble columns. Except for the Parthenon there is, I venture to say, hardly an ancient edifice in Greece with half the beauty and austerity of

The harbor on the island of Syra, capital of the Aegean Islands. The quay is lined with restaurants



The temple at Sunion, to which sacrifices were offered to the god of the sea, is a prominent landmark for vessels bound in from the Aegean

this time-worn and quake-wrecked temple to Poseidon.

In the morning at seven o'clock we saw it from the seaward side of its 200-foot eminence and then, getting wind, shut off the motor and busied ourselves with the sails. We had read and heard a great deal about the Meltem or Etesian wind which in the northern Cyclades blows every day from the northeast quadrant, and as we cleared Sunion and laid a course to pass the southern end of Makronisi we met the wind in person. But here let me interrupt myself.

Old Captain Bully Samuels, who commanded the Clipper Dreadnaught in his prime and became known as one of the hardest of the oldtime hard-boiled windjammers, had something to say in his autobiography about the Doro Channel and Sunion anchorage. According to his narrative (penned late in life), he lay to all of one night in a smaller ship than the Dreadnaught, unable to make headway against the Meltem blowing through the channel. Then in the morning, seeing that it was still impossible to beat through the windy strait, he eased sheets and ran from the lee of Evripo Island for Sunion. All day he ran before a howling northeasterly and just at sundown made a flying bring-up in Sunion. Another hour, one gathers from his yarn, and the captain would have been unable to see his way to the anchorage, but would have had to pass the night risking the unlighted shores to leeward. But the fact is (which Cap'n Samuels neglected to check up in the evening of his life) that Evripo is less than thirty miles from Sunion—at the outside a three-hour run before a driving gale. How, then, did the clipper occupy her time between noon and sunset ere making a spectacular twilight anchorage before the envious eyes of some British naval officers who happened to be present? I raise this question in no disparagement to the memory of a doughty captain, but as a warning to myself to avoid the deadly sin of exaggeration.

Clearing the southern tip of Makronisi (or Long Island), we sailed the port tack for Keos Island, noting with pleasure the great number of kaikis abroad this cloudless morning. With their pronounced sheer and with the rake of their long lateen gaffs they give two very picturesque but contradictory impressions, both of which are misleading. The first is, that when seen at a distance, they appear to have foundered, all but their stem, stern and rigging. The other effect (at least to eyes accustomed to the American rig) is that the kaikis heel to a tremendous angle and career with the speed of the wind. With this in mind I wonder what speed the oldtime "rakish piratical craft" of the Mediterranean were actually good for. Much of it, I dare say, was in the lively imagination of the

Sunion at the eastern entrance to the Gulf of Athens, surmounted by an ancient marble temple to Poseidon. Although only the columns stand it is still one of the most impressive of Greek ruins

The small boat harbor in the sacred island of Delos

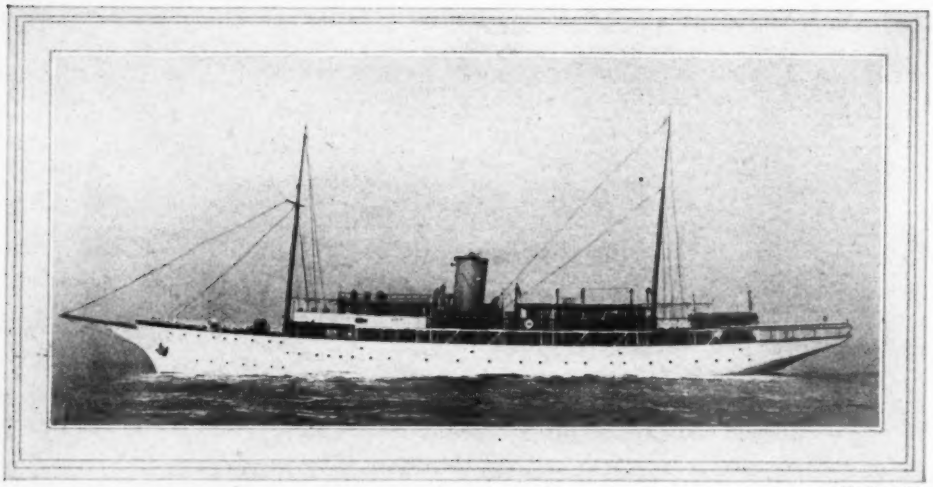
mariners who sailed their sluggish merchantmen through these waters. At any rate, none of the rakish craft of the present generation have the heels of Hotspur.

As we drew under the lee of Keos Island I watched with interest the play of the wind on the water. For the most part the sea was dancing and lively, but in occasional broad patches or long, irregular streaks the surface was unruffled by the capricious wind. We passed through these calm patches without losing headway and noticed that our sails felt as much wind as elsewhere. Overhead the blue sky was absolutely cloudless. The barometer (as I happened to observe) had risen a tenth in twenty-four hours as an augury of good weather to come.

As we came about some 200 yards from the shore of Keos Island and beat to the northward I asked P. L. to get out the Coast Pilot and read aloud what it had to say about Zea Channel (which we were approaching) and the more famous Doro Channel. She read for several minutes, and with each sentence my mirth grew louder and less restrained. Here was exaggeration, I said, in its essence. Gloomy Gus himself must have written such dejected words as these:

"The navigation of Doro Channel is one of the difficulties of the Levant, especially in sailing vessels, as the strong northerly winds which prevail during the summer months may be said scarcely to cease for upward of four months of the year, viz., from the beginning of May until the end of August or the middle of September; and after the autumnal equinox, although they do not so constantly prevail, gales from that quarter are as heavy and frequent as from other points of the compass. It is to be observed that these strong winds through the Doro Channel, which form such an impediment to vessels bound to the eastward, are often during summer strictly local and do not interfere with the sea breezes which blow freshly into the gulfs and bays during the day nor with the land winds which draw off the mountains at night. In this season it is common for vessels to pass Cape Colonna (Sunion) in the forenoon with a fresh breeze from the Gulf of Athens and carry it nearly as far as the northern end of Keos, where they meet a strong breeze blowing through the Doro Channel. In these cases it is not advisable to attempt to pass northward of Keos, for although there may be every appearance of being able to weather the island, there is danger in too close an approach, for it is almost certain that near the north point the wind will fail, with a heavy surf beating on the rocky shore, a strong current setting toward it, and the water too deep for anchoring. The general current from the (*Continued on page* 58)

Cicero was honored by a statue at Delos, but its head was long ago removed by curio hunters



M. Rosenfeld

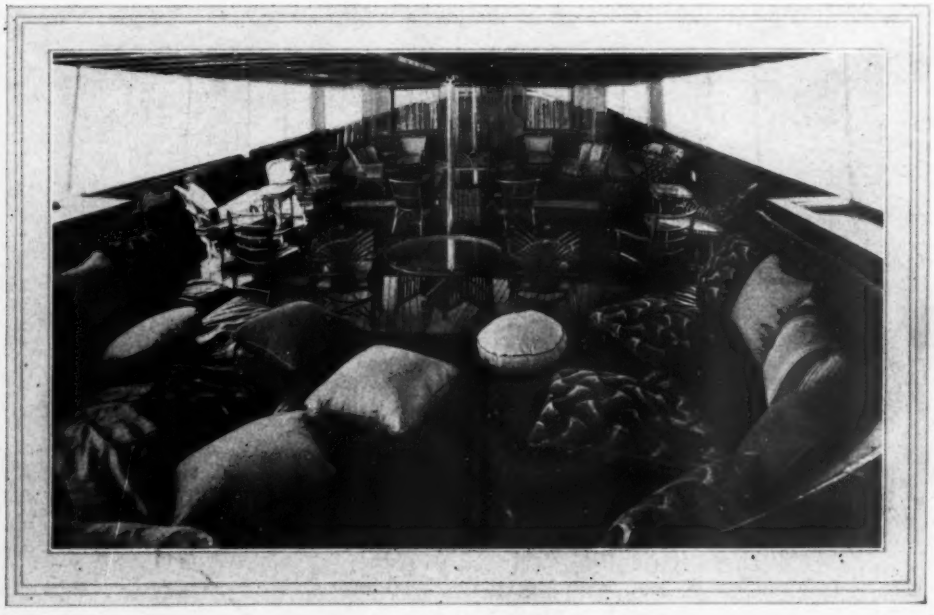
Rene is one of three identical yachts built for prominent American sportsmen in American shipyards

RENE—ONE OF THE FINEST

Alfred P. Sloan's 236-foot Winton Diesel Yacht Which Completed a Splendid Maiden Cruise Through the West Indies

AMONG the outstanding examples of the possibilities today in the modern yacht-building art is the magnificent 236-foot diesel yacht Rene, designed by Cox & Stevens in conjunction with John H. Wells and built by the Pusey & Jones Corporation for Alfred P. Sloan, Jr., of General Motors. Perhaps we should say one of three, for Rene is one of three sister ships of practically identical design and construction, differing only in minor details of arrangement and appointment. The two others are Nakhoda and Cambriona, also built for General Motors executives by the same concern.

Rene, with her owner and a party of guests aboard has just returned to Florida waters after completing



The splendid after deck is fitted and furnished to entertain many congenial guests

The music room and main salon with its cozy fireplace is an exquisite room in the deck house

a delightful West Indian maiden cruise. One glance at Rene, with her clipper bow and graceful continuous sheer from stem to stern, is sufficient to impress one with the thought that she is truly a masterpiece, and a more detailed examination of the craft bears out this impression. Two hundred and thirty-six feet in overall length on a 197-foot waterline, her beam is 34 feet and draft 13 feet. Her main propelling engines are two 8-cylinder airless injection Winton diesels which develop a total of 2,200 h.p. and provide a speed of 15 knots with a cruising radius of 10,000 miles. Accommodations provide seven staterooms, six bathrooms, and quarters for a crew of thirty-six.

Interior arrangements are palatial and elaborate, especially designed to meet the owner's personal requirements. Every conceivable instrument and navigational accessory which might contribute to the safety and comfort of the vessel has been included in its equipment. An automatic steering device known as a Metal Mike keeps the vessel on a set course without the aid of mechanical steering and a huge Sperry Gyroscopic Stabilizer controls rolling. Electrical devices warn the captain of open bulkhead doors or fire in any of the compartments.

The owner's bedroom occupies the full width of the ship and is finely furnished and decorated

Photographs by M. Rosenfeld

Estelle V, the new racer owned by Miss Carstairs, which was fast but unreliable

GAR WOOD WINS AGAIN FOR AMERICA

His New Racer Miss America IX With His Older Craft Miss America VIII and Miss America V Outrun English Entrants, Estelle IV and Estelle V, Both of Which Fail to Finish

GAR WOOD has had a new sensation. For the first time in his long career, as race boat owner and driver, the National ensign of Great Britain has waved in his face. But it was for only a flash. As soon as the new English challenger Estelle V passed Commodore Wood at the helm of his new racer, Miss America IX, on the second lap of the first race for the Harmsworth Trophy at the recent regatta at Detroit, she discovered that the pace was too great. Things began to happen aboard the racer, so that she slowed down and soon stopped, never to get going again.

The story of Gar Wood's victory and Miss Carstair's defeat can be best summarized by mentioning that the power plant of the English boat consisted of two wonderful motors costing upwards of $75,000, a gas tank worth about a dollar and a half, and several pounds of hay-wire. The gas tanks collapsed after about 10 miles of running, and the hay-wire wouldn't hold. That ended it all.

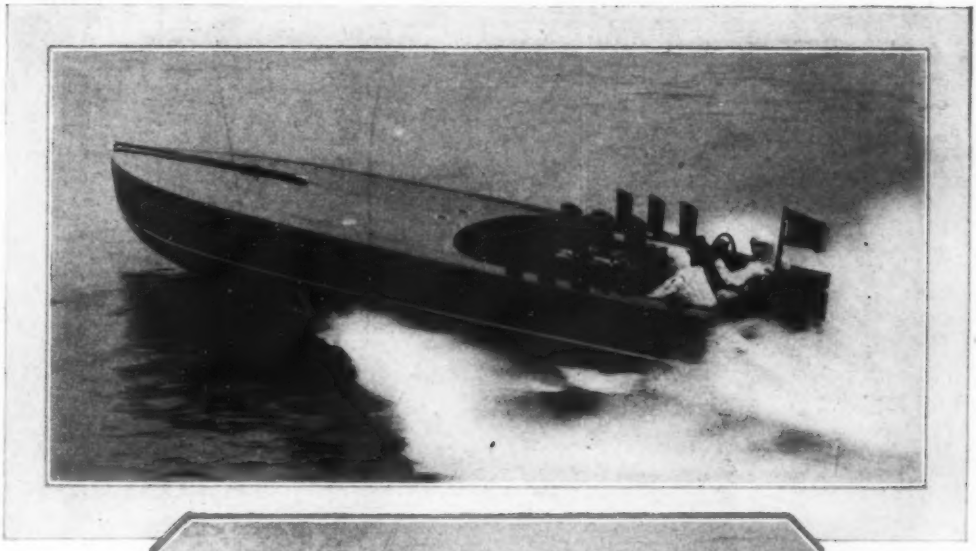
Estelle V was fast; yes, very fast. She was probably faster than any boat has ever traveled in American waters, but extreme speed doesn't always win races. In the first heat Estelle V, with Bert Hawker at the wheel, was very late getting started. The American boats, Miss Americas V, VIII and IX had been on their way nearly 30 seconds before Estelle V crossed the line. Thus they took a commanding lead from the very beginning. When Estelle V did get going she took it rather easily for the first 5 nautical mile lap. Then Hawker began stepping on the gas. Then how this boat did go. She passed Miss America V with little or no effort and closed the gap separating her from the other two Miss Americas until they were all on even terms on the second lap. At the upper turn before the finish of the second lap, Estelle V actually passed the American boats. Then an oil connection broke and half blinded Estelle's crew. Before this could be fixed, which took only a few moments, Miss America IX and Miss America VIII were again in the lead.

Estelle continued on for another mile and then stopped, her fuel tanks empty and the bottom of the boat covered with free gas. A hasty examination of the fuel lines were made in an effort to determine the cause, but the lines and all connections were found to be in perfect condition. The only other cause must be the result of leaky fuel tanks but as these were built in under the side and aft decks they could not be reached for inspection. Therefore, Estelle V took a tow, which disqualified her from starting in the second heat.

When Estelle V reached her boathouse, the two tanks were removed and it was found that exactly the same thing had happened to each tank. The rivets holding the baffle plates to the outer sides of the tanks had pulled through the outer shell of the tanks, causing about a dozen holes about the size of a lead pencil. Through these holes all the fuel had leaked out.

Miss Carstairs took the failure of her new boat good naturedly and like the fine sportslady which she is. However, she publicly announced that she had tried three times to win the Harmsworth trophy, racing in America in 1928, 1929, and 1930, and that now she was through forever.

Miss Carstairs' other boat, Estelle IV, wasn't fast enough. This boat ran beautifully, finishing third in



Above: Miss America IX, Gar Wood's latest winner

Baby Minchas, the 5½-liter boat owned by C. S. Moulthrop of Bay City, Mich.

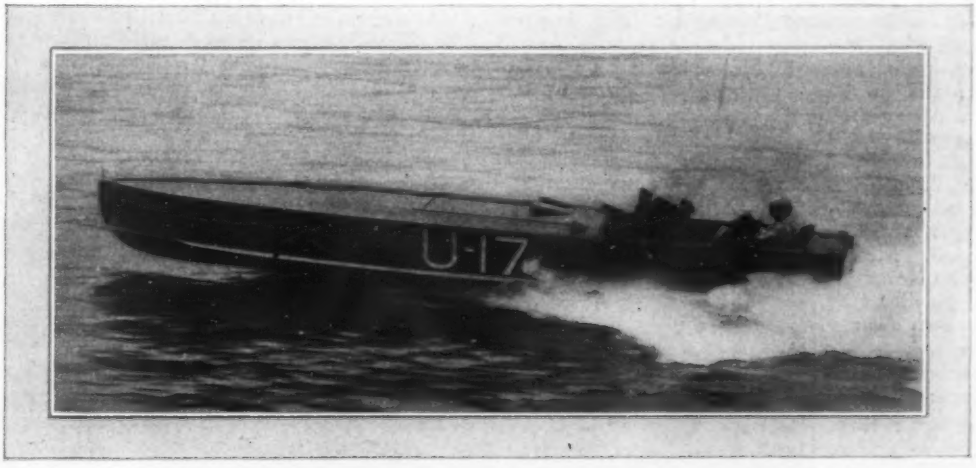
the first heat, but failed to complete the second heat.

The performance of the American boats was a marked contrast to that of the English. Miss America IX is a new boat this year, Miss America VIII was last year's boat, and Miss America V is four years old. All three of these boats finished every heat and every lap without a sign of trouble. Commodore Wood himself drove the IXth. George Wood was at the helm of Miss America VIII, and Phil Wood drove Miss America V.

Miss America IX won both heats, establishing two new records. In the second heat her speed for the entire race was 77.390 miles per hour, and her best lap was made at a speed of 79.082 miles per hour.

The two heats for the Harmsworth Trophy were the real features of the regatta and probably the main reason why the several hundred thousand persons lined the shores of the Detroit river for two days. However, there were many other events, including races for almost every size and type of craft. As usual Eddie Edenburn was at the helm, with his same committee which has functioned so efficiently in years past. With such an outfit, no arrangements could possibly go wrong.

All of Gar Wood's boats were built by himself in his own plant, Gar Wood, Inc., at Algonac, Michigan. Miss America IX and Miss America VIII were 28 feet in length and Miss America V was two feet larger



Estelle IV, driven by Miss Carstairs, which finished third in the first heat but broke down in the second race

Frank Wigglesworth and J. E. Wilkinson of Boston in their Dodge 16-footer which won the 50-mile Dodge Sweepstakes and $2,400 in cash prizes

Commodore Wood's new boat had a beam of 8 feet 7 inches, which is 6 inches wider than Miss America VIII. Each boat was powered with two 12 cylinder Packard motors, having a bore of 6⅜ inches and a stroke of 6½ inches and a rated horse power of 1050. Stromberg carbureters were used on both Miss America VIII and Miss America IX, with Delco Remy ignition, Exide batteries and Champion Spark Plugs. Hyde propellers having a diameter of 21 inches and a pitch of 35 inches and turning at 3600 r.p.m. were used.

Miss America V was powered with two 12 cylinder Gar Wood Liberty motors, rated at 550 horse power each. Joes reverse gears, with four Zenith carbureters, Delco ignition, Exide batteries and Champion plugs, were used in this boat. Hyde propellers having a diameter of 21 inches and a pitch of 37 inches and turning 2500 r.p.m. were used in Miss America V.

Gar Wood used Duplex marine engine oil for lubricating the motors in all of his race boats in this year's Harmsworth race, just as he has done in all of his winning hydroplanes for many years.

Miss Carstair's new boat, Estelle V, was 28 feet in length and had a beam of 8 feet 8 inches, a freeboard of 24 inches forward and 25 inches aft. This boat was equipped with two Napier, 12 cylinder super-charged motors, having a bore of 5½ inches and a stroke of 5 1-8 inches, rated at approximately 1450 horse power each. A Brunton propeller of 16 inches diameter and 23 inches pitch and turning at 5400 r.p.m. was used. Miss Carstairs herself built Estelle V in her own plant in England.

Estelle IV had a length of 35 feet and a beam of 9 feet 6 inches, a freeboard of 29 inches foreward and 22 aft. Two 12 cylinder, 5½ by 5 1-8 inch Napier motors were used without superchargers. Two 16 inch by 21 inch Brunton propellers were used, turning at 3300 r.p.m.

The event of next greatest importance to the Harmsworth race was the 50 mile sweepstakes open to Dodge 16 footers, for which the Horace E. Dodge Boat and Plane Corporation, with the Lycoming Mfg. Co., had offered $6,000 in cash prizes.

A most remarkable story concerning the reliability of standardized American motor boat runabouts was told in the running of this Sweepstakes race. A two-hour deluge of rain, a choppy two and a half mile course with six turning buoys and the greatest number of stock runabouts ever assembled in a motor boat contest rushing over the starting line after a paced parade in rows of five around the course. That was the picture. Twenty-eight boats were entered for this unique contest, from sixteen widely separated cities, including two from London, England. The entry from New York was mislaid in transit and it never arrived. Another knocked out its bottom on a log, tuning up for the race. In the paced lap one of the British entries picked up some river grass in its water intake and was unable to start. Twenty-five boats started.

At the end of the race almost two hours later, with the rain still pouring down, twenty-four of the original starters were still running, although one was on the way back to the boat house, its owner deciding he had been rained upon enough for one day. The only other boat that failed to finish was running in third place 200 yards from the finish line. Its owner had used up his fuel in running around the river before the race and didn't have enough left to finish the last 200 yards. This cost him the

(Con't on p. 66)

The men that did it. Commodores Barthel, Eldridge, Sorensen, Scott Paine and Eddie Edenburn

© Fox Photos, London

Miss Amy Johnson drives her first Dart runabout at 40 miles at Welsh Harp, England

FAMOUS AVIATRIX TRIES RUNABOUTING

Miss Amy Johnson, England's Flying Heroine, Is Introduced to Fast Boating and Finds New and Greater Thrills

WHEN one has lived a fair number of years and had the good fortune to have figured, in one capacity or another, in most of the important sporting functions in various parts of the world, and participated in thrills that most people only read about, dream about, but never realize, it is difficult to become excited, to find an outlet for an enthusiasm that would send the populace generally into ecstasies of delight.

That by way of introduction to the writer; and yet, notwithstanding all this, I've been thrilled, really and truly thrilled, jumping for joy with the exuberance of a boy when he first learns he has been selected for the school eleven. And Miss Amy Johnson, the intrepid air girl, the ace of fliers, the heroine of the epic flight into the unknown, is responsible. Though I have had my full measure of this world's joys, I want to thank her for putting on the coping stone of an edifice of which I am proud.

But let me share this wonderful joy. Come with me, and Johnnie, in a new kind of thrill for both of us. At the invitation of J. W. Shillan, a more than keen enthusiast of motor boat racing, who, incidentally, is behind the gift to Miss Johnson of a speed-craft for the water, I jogged over to that fine stretch of water at the Welsh Harp at Hendon, and there, for an hour or so, I was one of the select few passengers in his boat, though with Johnnie at the wheel.

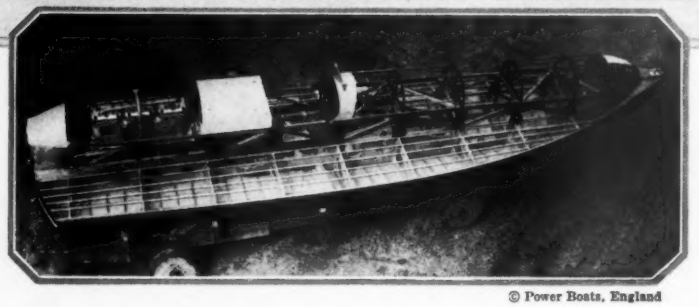
Johnnie, as she is popularly known, with J. W. Shillan and others in the Dart craft which she drove

It was Amy's first experience of a speedboat. Like most of us I presume she paid her humble sixpence for a trip in the old Skylark to be found at every seaside resort, and perhaps there was some excuse for my being a little fearsome when, within two or three hundred yards from the floats, she declared she could manage the old thing. Yes, fearsome, despite an official assurance that the boat would not turn turtle, for Johnnie immediately showed a desire to open a full throttle, and the Harp one thought of on looking into the uninviting wet water was not of the kind after which the adjoining hotel was named.

Those speed boats do not belie their name; they bound into action in amazing fashion. At first I clung to the side, only to feel ashamed of my timidity as I caught a glance at the sports girl in the seat in front. There she was, with her shortened locks flying in the breeze, and laughing eyes glistening with the joy of living through such an ordeal. And I tried to show that I was not afraid of falling overboard.

(*Continued on page 74*)

Miss Britain I—the successful English 5½ liter boat designed and built by Hubert Scott Paine



The hull before being covered. Note rigid construction and Scripps engine mounted in extreme stern

© Power Boats, England

MISS BRITAIN I WINS INTERNATIONAL TROPHY

Hubert Scott-Paine's Challenger in the New 5½ Liter International Class Which Successfully Competed for the Detroit News International Trophy

AT the Detroit Regatta held early in September the first real competition for the new 5½-liter International Class was provided. While only three craft entered, yet their performance was so wonderful that the success of the class is already assured. Everyone who saw the boats run was enthusiastic about them and a dozen or more persons gave assurances that they would build 5½ liter boats for next season's racing events. The craft proved fast and seaworthy and as the rules place no restrictions on the hulls except that they shall be at least 20 feet in length, it is possible to get a fast racing craft at a cost of around $3,000. The power plants are restricted to the stock models built by Scripps, Gray, Lycoming or Chrysler of around 130 horsepower, thus assuring real racing competition and eliminating the factor which has killed many popular racing classes in the past, when one or two wealthy men had special racing motors built for them at a cost of from $6,000 to $10,000 each. This practice invariably produced one boat many miles faster than the others in the race and automatically killed the interest in the class from the standpoint of spectators, drivers and owners. In this class, by making it permissible to use only those motors specified in the rules which are procurable by anyone at a reasonable price on a moment's notice and all of them of equal or nearly equal power and built according to the same specifications, it should make for a popular and reasonably priced racing class.

Next year, we believe, will see a dozen or more boats built to compete for the 5½ liter championship which has just been won at Detroit by Hubert Scott-Paine with his British challenger, Miss Britain I.

This British challenger which won International Motor Boat honors and aroused unusual interest, was built by Hubert Scott-Paine, well known marine motorist, a Vice-President of the Marine Motoring Association of England and an officer of the British Power Boat Company.

The challenge was the result of his visit to America in January, when, meeting the Gold Cup Committee at Detroit, he was requested to make a bid for the Detroit News International Trophy with a 5½ liter class racing motor boat. *(Continued on page 76)*

Photographs by M. Rosenfeld

Miss Dee Wite II, the new mile-a-minute runabout of Joseph B. Lodge

MISS DEE WITE II— A FAST HYDROPLANE RUNABOUT

A Ten-Passenger Luxurious Craft With 900 Horsepower Giving a Mile-a-Minute Speed

ENTERED for the Harmsworth event in the Detroit Regatta at the request of race officials, Joseph B. Lodge's new hydroplane runabout, Miss Dee Wite II, was withdrawn at the last minute to leave a clear field for the cup defending Miss Americas. Miss De Wite II, strictly a passenger carrying pleasure runabout, was entered to fill out the three boat American team. At this writing she has not had an opportunity to show her speed in competition.

Designed by Russ Pouliot, and constructed in the Dwight Lumber Company's works under the direction of Joseph B. Lodge, general manager, Miss Dee Wite II is a beautiful, fleet craft, 35 feet over all with eight foot beam and carries 10 passengers in luxurious comfort. Her displacement is six tons, construction is seam batten and brass screws and copper fastenings are used throughout. Powered with two 450 horsepower Liberty motors, she has a double-bottom three-quarters of an inch thick and one-half inch sides. Sides and deck are planked with Honduras mahogany.

Miss Dee Wite II is strengthened longitudinally with four truss girders and has hogging belts on her side. The fittings and hull are streamlined and the stern is drawn into a point for each turning. Oil coolers are provided for both gear boxes and each motor. Two four-inch air tubes vent the bottom. Her controls at the steering wheel are positive, convenient and handsome—a distinct departure from conventional design.

Her builders are confident that she sets a new standard and will prove unrivalled in her class.

An excellent view of Miss Dee Wite II showing the comfortable and roomy passenger capacity

The 38-foot Hackercraft hydroplane cruiser doing over sixty miles on its trial trip

A REGAL SPEED CRUISER

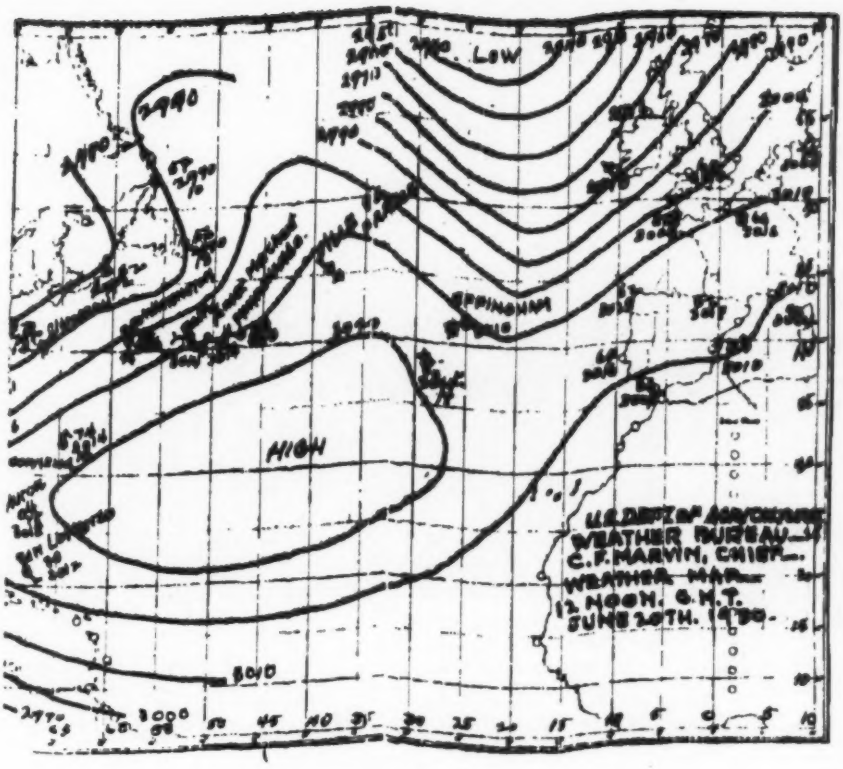
Hacker Completes a Sixty-Mile Packard-Powered Cruising Commuter for His Majesty, the King of Siam

IT IS quite a tribute to the excellence of American craftsmanship that when the King of Siam should want a cruising commuter yacht of exceptionally fine build and rather unusual capabilities, he should go to a manufacturer on the opposite side of the globe and place his order with an American boat builder. The new royal cruiser was sold to His Majesty not long ago through the Allied National Corporation of London, which maintains offices in Bangkok. Specifications required that the boat be of the very finest construction in every detail and that she be capable of maintaining a commuting speed of fifty-five miles an hour, which trials showed she was more than able to produce. Rather than being a purely high-speed creation, suitable for nothing but racing work, this remarkable boat was to have limited cruiser accommodations and was required to develop close to a mile-a-minute speed consistently in commuting service.

Official trials were conducted by Cox & Stevens of Detroit over a certified course with the King's representative aboard during which the commuter exceeded her guaranteed speed by a full five miles. When the trials were run she was carrying six passengers, a fuel load of one hundred gallons of gasoline and she was equipped with all the cruising accessories that she would carry in regular service. In four runs, two upstream and two down, she averaged 61.4 miles per hour and even at this high speed the throttle of the big twelve-cylinder, 860 h. p. Packard motor was not wide open. She was swinging a 21 by 26 Hyde wheel at 2275 r.p.m. through a 1 1/3 to 1 reduction gear and according to her designer, John L. Hacker, there were still another hundred revolutions available in the engine. The best running time for a down-stream lap was 63.73 m.p.h.

A unique type of hydroplane step is used in the underbody construction with three shallow steps so designed as to allow the best possible performance. The scientific designing of these steps resulted in making the boat plane at an exceptionally low angle at full speed, and to the passengers this fast 38-footer seems to flatten out after it reaches speeds approximating 40 m.p.h. and run comfortably with smoothness that is ordinarily associated only with much lower speeds.

An excellent idea of the way the boat trims and appears at full speed may be obtained from the photograph above. She seems to convey an impression of stability and steadiness and the most casual glance reveals that she gets through the water with a very minimum of disturbance and effort. The cockpit forward is protected by a raked windshield behind which the driver sits. Directly behind him amidships there is a neat, low, stream-lined sedan top carrying windows on the four sides as well as port lights on either side at the after end of the cabin. Accommodations within include a fully equipped toilet room and on the opposite side of the cabin an ice box with top arranged with a sink and pump. There is also space for a single burner stove. A door is located at the aft end of the cabin entering into a cockpit which provides additional passenger space. Following this comes the flush hatches, under which is housed the powerful Packard motor, and in the extreme stern there is another open cockpit. Only the finest of materials were allowed to enter into the construction.



Reproduction of an actual weather chart transmitted and reproduced on the S. S. America entirely by new radio apparatus

Weather Chart - Very Good.
This weather chart is of great value to all vessels at sea.
Geo Reid
Commander S. S. America.
at Sea
JUST AFTER PASSING FASTNET.
125 WEATHER CHART RECEIVED AT SEA.

WEATHER MAP BY RADIO

Ships at Sea Now Able to Pick Up and Reproduce Weather Data

For Greater Safety and Comfort on Shipboard

PROBABLY no contribution of science during the current year is destined to exercise so profound an influence upon the safety and speed of ocean travel and traffic as the successful transfer of weather maps from shore to vessels at sea.

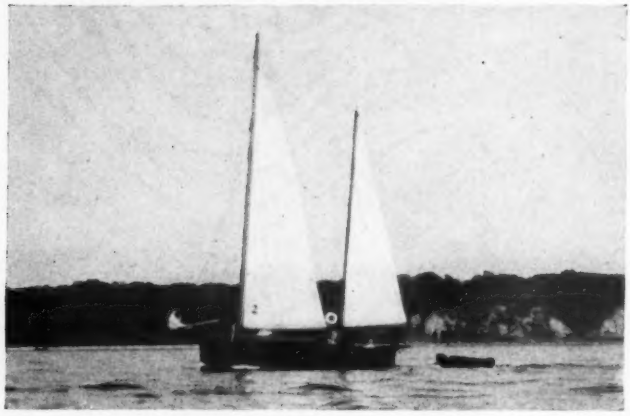
For years navigation officers have appreciated the value of such maps which they have used prior to leaving port. They have hoped for means of extending the land service beyond the range of storm signals along the coast so that, like landsmen (particularly farmers), they might know in advance what the weather would probably be within the ensuing twenty-four hours.

For years also officers of the United States Weather Bureau have recognized the importance of such a marine service and have hoped for means of trying experiments along these lines. However, not until cooperative arrangements were made with various European nations and the Radio Corporation of America did such a venture become possible.

Thanks largely to the activity of Edward B. Calvert, chief of the Forecast Division of the Weather Bureau in Washington, representatives of many maritime nations met last October in Copenhagen, Denmark, and agreed upon a series of experiments to be conducted upon the Atlantic during 1930. They also decided upon the codes to be used and the data that each weather map must include so as to be of value to all nations. These data are as follows: The hour of reporting, according to Greenwich Mean Time; longitude and latitude of each reporting station or vessel; barometric and thermometric readings; character of the sky; and wind as to direction and velocity.

Months went by before arrangements and apparatus could be made but at last, on June 20, the first marine weather map was compiled by Dr. James H. Kimball, of the New York office of the Weather Bureau, and broadcast on a photo-radio machine by the Radio Corporation of America as an item of the Photo Radio News.

(*Continued on page* 82)



Tidal Wave, owned by Samuel Wetherill, Larchmont Yacht Club. 32-foot ketch, Four-30 Gray motor. Finished first

TIDAL WAVE WINS AUXILIARY RACE

The Sixth Annual Huntington to Cornfield Event Is Marked by an Entry List of 21 Husky Little Ships and the Calmest Kind of Weather

By WILLIAM ATKIN

YOU will remember the plans of the 28-foot cutter which were published in MoToR BoatinG about a year ago. And you will remember that I was at that time working on her. Well, at last she was finished, or perhaps I should say practically finished, because there are still some things to be taken care of; but these items are not vital.

The rig was changed early in the building to a knockabout with jib-headed mainsail, and it has proved to be a very good rig, too, and I am glad I changed it. A few trial trips showed that Ben Bow is fast, very stiff and comfortable.

And so we entered her in the Sixth Annual Race for Auxiliaries held under the auspices of the Huntington Yacht Club. Important among her crew is the 8 to 10 h.p. two-cylinder Kermath motor, an excellent little piece of engineering and a most economical outfit. For this type and size boat *is* there anything better? I am beginning to think there is not.

Well, the day came around at last for the start and twenty husky little craft assembled with crews aggregating over a hundred men. Not so bad out of an entry list of twenty-one. The Huntington Yacht Club served a midday meal of chowder, pie, coffee, etc., and some sort of refreshing beverage which was rather in good demand.

Ben Bow, owned by William Atkin, 28-foot knockabout, 8-10 Kermath motor. Finished second

Just as in the past, the course was from Huntington Bay to and around the Cornfield Light Vessel and return, a distance of 106 miles. The handicap formula remained the same as for the last two races and was as follows: Gas allowance will be the mean of the over all length and the water line length, times the extreme beam, times the depth from sheer line to the top of the cabin flooring, times .004 gallons of gasoline for each cubic foot of capacity so measured, plus .01 gallons of gasoline for each cubic inch of cylinder displacement. Two cycle engines have 20 per cent of gasoline added. And the time allowance: 10 minutes per foot over all is computed to the nearest foot.

Long before 3:30 p.m. Saturday, August 30th, 1930, all the fleet were fueled up and lay at anchor along the starting line across Huntington Bay. Interesting they all were, too, from the 40 foot Bugeye Jijatopi to the little 19 foot cat boat Siren. There they lay without a breadth of wind and you might say roaring to go. The warning gun

(*Continued on page* 84)

The Detroit News

Catrus II, the fast Sterling-powered Wheeler cruiser driven by R. A. Hart which averaged 15.81 m.p.h. over the difficult Lakes course

CATRUS II WINS SCRIPPS TROPHY

Heavy Going Over 122-Mile Course Proves Added Handicap in Annual Reliability Race in Which Fourteen Cruisers Take Part

THE annual Scripps Trophy Race for cruising boats was held this year as usual, under the auspices of the Detroit Yacht Club. The conditions for this race called for a run during the night on the waters of Lake Erie over a distance of 122.25 statute miles from Detroit to Put-In Bay and return. The test to which the boats are subjected in this long run is a particularly severe one. Not only is it a test of the ability of both boat and engine but also a more thorough test of the navigational skill and endurance of the skipper and crews of the boats. This race was run this year on August 23 on the same day as the ocean race of the Sheepshead Bay Yacht Club in New York and was similarly affected by the gale which was prevalent over the entire eastern part of the United States and which was the aftermath of the hurricane which destroyed the greater part of the Island of San Domingo in the West Indies.

Twenty-two cruisers had signified their intention of starting in the race but only fourteen of these faced the starters signal. The race was started on handicap times and the first half dozen boats were severely penalized in addition to their usual handicaps by having to get under way in the teeth of the gale. The faster boats which started later in the evening got going after the gale had blown itself out and did not meet anywhere near as severe weather as the earlier starters. This condition no doubt accounts for the fact that five of the earlier boats were compelled to seek shelter in the early stages of the race and accordingly withdrew.

This race has been run continuously since 1911 and the Scripps Trophy which is offered as the prize is a very handsome one donated by Commodore Wm. E. Scripps for this contest. This year the Wheeler cruiser Catrus II, owned by Russell A. Hart of the Detroit Yacht Club proved to be the winner of the race. His boat, one of the newer Wheeler craft is powered with a large Sterling engine and was one of the fastest of the fleet entered for the race. Only one other was faster, this being the cruiser Whitewood II owned by Dr. A. R. Hackett which had a greater handicap and was the last boat to get away. Dr. Hackett had a large crew of able men aboard but unfortunately the compass on this boat went awry after the start leaving them in a ticklish situation out on Lake Erie in a dark night without the means of guiding their boat. So much time and distance was lost in attempting to navigate without the help of a compass that the race was abandoned as hopeless. Another of the cruisers which ran into difficulties was Betty C owned by S. W. Curtis of the Detroit Yacht Club. Betty C was the last of the boats which finished and had encountered a floating log in the darkness on the lake. This resulted in considerable damage to the propeller shaft and rudder which made fast progress impossible. She accordingly limped back after having been at sea for almost 14 hours. (*Continued on page* 88)

Photographs by M. Rosenfeld

The Sterling engined Wheeler Playmate which won the ocean cruiser race

A ROUGH DAY OF RACING

Annual Ocean Cruiser Race of Sheepshead Bay Yacht Club

Brings Out Small Fleet on Roughest Day of Year

THE annual ocean cruiser race of the Sheepshead Bay Yacht Club enjoys the enviable reputation of being held over one of the most difficult courses in the waters near New York. The actual distance, 45 nautical miles, is not so great but somehow or other the weather man does not seem to cooperate in the slightest. Each year, as far back as can be remembered, there has been some sort of a gale or heavy sea conditions on the ocean off New York Harbor on the day selected for this race. This year the race was scheduled for August 24 and with its customary obstinacy the weather blew a howling gale all of the day before, with sufficient wind left over to provide the severest conditions at sea yet encountered during the running of this race.

As in previous years, the race was conducted under the past performance rules of the American Power Boat Association, with the boats taking part starting on their handicap times. Seven cruisers had entered and started in the face of the gale at intervals from 10:30 in the morning until about one. The handicap rules provide that the owners declare the speed of their craft, which statement is then used to determine the handicap allotted. Naturally all owners are more or less familiar with the speeds of their boats, but the severe weather conditions on the day of the race upset their calculations greatly. Also, while the rules do not specifically require that the speed declared be the maximum of which the boat is capable, it does seem that a revision in this particular is necessary. Naturally, a boat with a top speed of close to 20 knots which declares that it can only do 12 knots has a very wide margin of reserve speed to call on in case the weather makes this necessary. Slower boats of lesser power who state their speed more correctly do not have such a reserve and cannot under severe weather conditions maintain their declared speed.

Of the seven cruisers which started only five were able to finish the course. Of these, four have been competing in this race for several years and were thoroughly familiar with both the course and the conditions likely to be encountered. The little cruiser Idler, owned by A. G. Montagne, was the slowest of the seven entrants, with a declared speed of 7 knots. Her starting time had been set at shortly after 10:30 and her schedule required six and one-half hours for the course. Actually she finished some eighteen minutes ahead of time and was accordingly penalized by twice this amount or 36 minutes, which was sufficient to place her in the last position. Playmate, the fast Wheeler boat entered by W. Wheeler, with a declared speed of 12 knots, was scheduled to require 3 hours and 48 minutes for the full course. Actually she finished 2 minutes ahead of time, which then became a penalty of four minutes and permitted her to secure first place in the race. Playmate is one of the newer Wheeler seaskiffs and is powered with a Sterling Petrel engine, rated by the builders at 145 horsepower for cruiser racing.

Idler III, owned by Otto E. von Au; Nomad, owned by E. S. Thomson, and Paducah, owned by Commander P. J. Downey, had a very close race among themselves for the second and third places. According to the report of the race committee, Idler III finished four minutes ahead of its scheduled time, and even though he was penalized twice this amount his corected time was a few seconds better than in the case of Nomad, which required 5 minutes more than its scheduled time for the race. Paducah was in this same category, and did not figure among the winners.

The handsome interior of the new Los Angeles show room of S. Clyde Kyle with its array of beautiful new runabouts and cruisers

LOS ANGELES HAS NEW SHOWROOM

A Keen Eyed Observer Sees Much of Interest to the Boatman and Finds That a New Showroom Has Been Established in Los Angeles

BELIEVE it or not——

While waiting for the street car, I noticed a great many boats, beautiful, fine cruisers of various sizes, cruising down a restricted boulevard of Los Angeles.

My interest was immediately aroused to the extent that I followed this procession on out into Beverly Hills—the most exclusive residential district of Los Angeles—and noticed all of these cruisers coming to anchor in front of a beautiful building at Beverly Hills.

I became more interested——

I saw a gang of workmen starting to move the boats around—placing them in position—and for the moment I thought I was looking at the New York Motor Boat Show in New York.

Finally, the boats were all placed in position and by casually making a few inquiries I ascertained that S. Clyde Kyle was opening a Marine Sales Salon at this address.

Believe it or not!—while waiting for the same street car——

I noticed many flower wagons driving up and baskets of flowers were removed therefrom and set inside this glass-front building which housed all of these beautiful cruisers—most gaily decorating this Salon in a gorgeous array of flowers such as are only grown in California.

Curiosity again prompted me to notice the various tags on the beautiful baskets of flowers and found that they came from all of the representative banks of the great city of Los Angeles.

Entering into the showroom under the softly glowing, warm, vari-colored lights, the first thing that caught my attention was a beautiful fountain carved in the old Italian manner of the Renaissance period, with the colored lights softly playing upon the running water overflowing into the large pool in which many species of small fish idly swam about.

I was told that while this fountain added much beauty to the general atmosphere, it also provided a most practical purpose in that it humidified the air to such an extent that there was sufficient moisture therein to keep the boats from drying out.

The Salon was most attractive with its beautiful palms gently swaying back and forth in the soft, soothing breezes swept down from the glorious hills which abound around Beverly.

My attention was called to the beautiful array of gorgeous marine paintings (*Continued on page* 88)

GENERAL MOTORS ACQUIRES WINTON PLANT

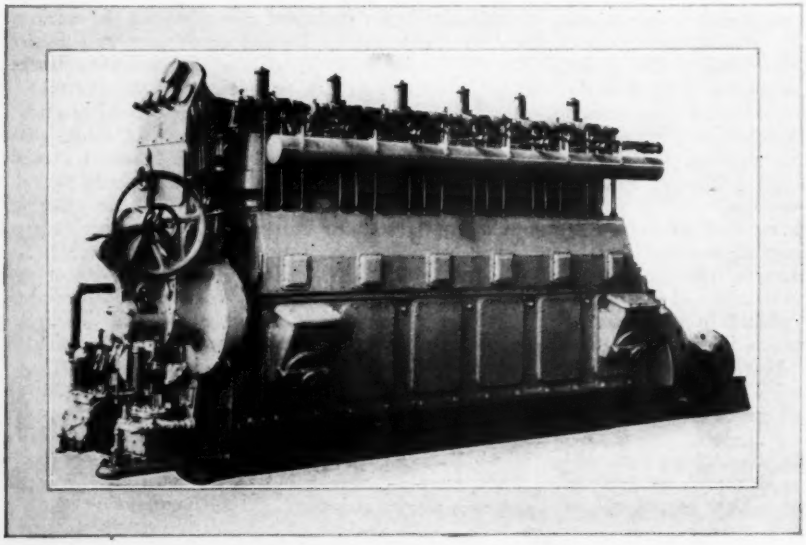
One of the World's Most Powerful Organizations Enter the Diesel Engine Industry in Both Marine and Industrial Branches

THE most significant event in the Diesel engine industry in many years is the announcement that General Motors Corporation has acquired The Winton Engine Company, of Cleveland, O., one one of the world's foremost builders of Diesel engines, which will be known henceforth as the Winton Engine Corporation. Users of Winton equipment will be glad to know that the officers of the old company, the operating, and sales personnel, will remain with the new corporation, and the further development and production of Winton marine and industrial engines will be carried forward by the same men who have served the company for so many years.

George W. Codrington, under whose leadership as president Winton products have been brought to their present outstanding position of leadership, will continue in the same capacity with the new corporation. Mr. Codrington has had a remarkable career and is generally recognized today as one of the leading and most farseeing executives in the industry. Coming to the company in 1917, after an excellent training in the practical operation of marine equipment, he was able to suggest and effect improvements in plant operation, design and selling methods which brought him forcibly to the attention of the officers. In 1918 he became General Manager and in 1928 was made President. Since he has been in direct charge of the many activities pertaining to the designing, building and marketing of the company's products he has won for himself an outstanding reputation as one of the country's leading internal combustion engineers. Everybody in the marine engine industry knows George Codrington, likes him, and respects his ability for getting things done. His success in the industrial field is no less marked. Most of the big railroad lines are now using rail cars powered with Winton engines, designed and built under his guidance and supervision. This, in itself, is no mean accomplishment. He has also perfected and improved the design of industrial power plants, many of which are now in service in various parts of the country. A young man today, only 43, he already has behind him a record of achievement that holds promise of a still more brilliant future.

George Codrington, President of the Winton Engine Corporation

In view of the tremendous strides made by the Diesel engine in industry in recent years, it is quite natural that General Motors should direct its attention seriously to this type of prime mover. Practically unknown in this country a few years ago, the Diesel engine has replaced the steam engine in countless vessels of all kinds. Today Diesels are being used on approximately 60 per cent of the world's shipping tonnage under construction. The world's gross tonnage of Diesel powered ships increased from 3,493,284 in 1926 to 6,701,302 in 1929. With its demonstrated ability to produce electric power for one cent per kilowatt hour, the Diesel has firmly entrenched itself in the industrial field. Approximately one-half of the municipal power plants in the United States use Diesel power wholly or in part. Diesels are used by the public utilities, and Diesel pumps are used on practically all of the country's 100,000 miles of pipe lines. And the Diesel promises, in the not distant future, to make further incursions into transportation, both by



One of the 235 h.p. airless injection Winton marine diesel engines

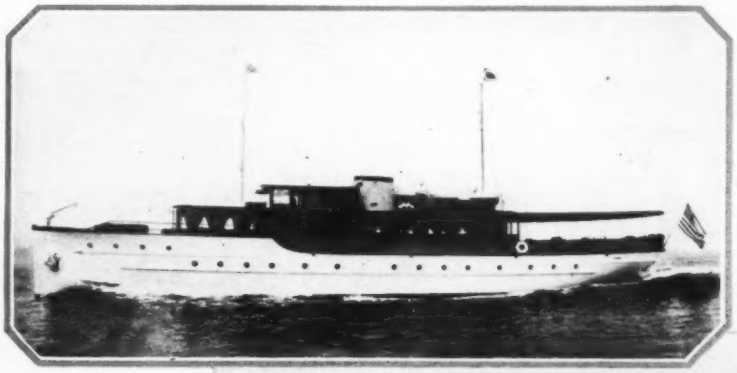
rail and air. For the latter field especially the Diesel holds some interesting potentialities.

Great things have been done with Diesels; great things remain to be done, and no organization in the world is better fitted to direct future development than General Motors. Equally important, no company is better qualified to perform the work than the one which General Motors has acquired. Winton Diesels have been brought to a high state of development, and the organization responsible for their advanced design has the experience and engineering ability necessary for the work which lies ahead. Winton Engine Corporation has been a leader, too, in the development of gasoline power plants for marine and industrial service.

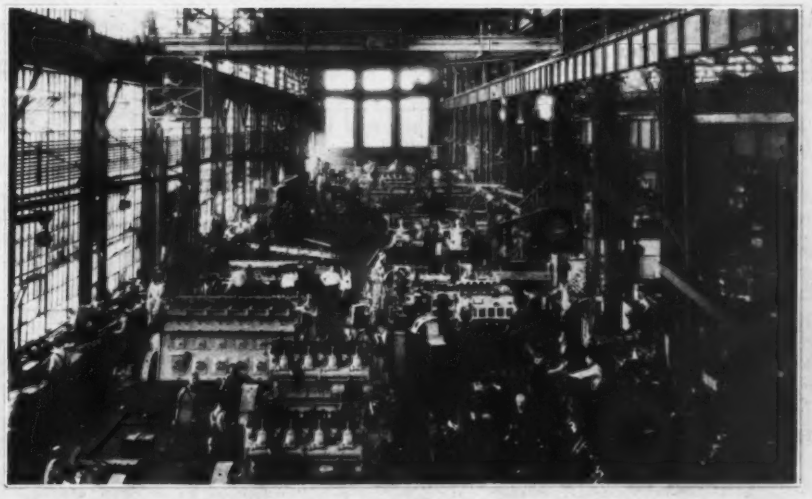
The Winton plant is located in Cleveland and is one of the finest of its kind, both as to the structure itself and its equipment. The entire plant is of the daylight type, steel and glass, with fireproof roof and sprinkler system. The various departments and their equipment units have been so arranged that all materials pass through the plant in proper sequence, minimizing handling and insuring speed and economy in production. At one end is the finished stock room and above this is located a modern engineering department and drafting room. Each of the main buildings is equipped with a crane traveling the entire length of the building, and numerous stationary jib cranes. Winton engines are shipped set up, assuring proper adjustment upon delivery at destination. Loading platforms are on the N. Y. C. railroad tracks,

(*Continued on page* 90)

Arminia, Gen. W. W. Atterbury's new Winton-equipped cruising yacht built by Mathis



Lamora, a 93-foot Winton - equipped houseboat built by New York Yacht, Launch and Engine Company



A section of the assembly plant at the Winton works in Cleveland

SURE MIKE—A NEW IDEA IN CRUISERS

The Design and Specifications for a Rough Water Hydroplane for Big Outboards Which Carries a Shelter Cabin and Which Can Cruise in Any Water Safe for Any Boat of her Inches

Designed Especially for MoToR BoatinG

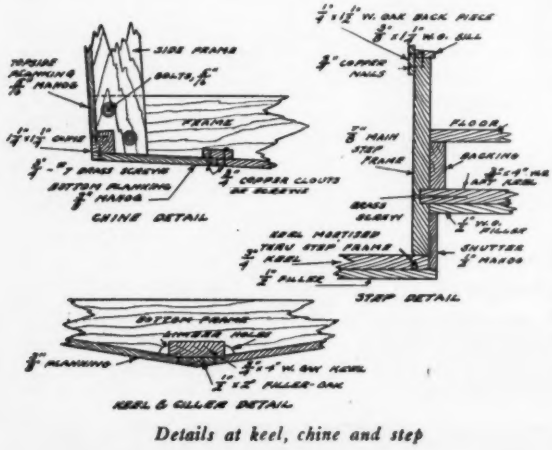
By E. WESTON FARMER, N.A.

Part II

BEFORE we get into the usual how-to-build angles there are two other things I want to call to your attention. One is what you may expect from Sure Mike in the way of behavior.

The other thing concerns an exposition of all the design data. It seems to me that half the charm of these how-to-builds in MoToR BoatinG lies in the way they show the methods of construction employed by boat designers, thus letting us gauge not only the usefulness of the man's design as stacked up against our needs, but also letting us gauge his judgment, experience and originality. Where else will you find so useful a school of design?

Thus it seems to me it is only putting a higher polish on my work here to give you the engineering



Details at keel, chine and step

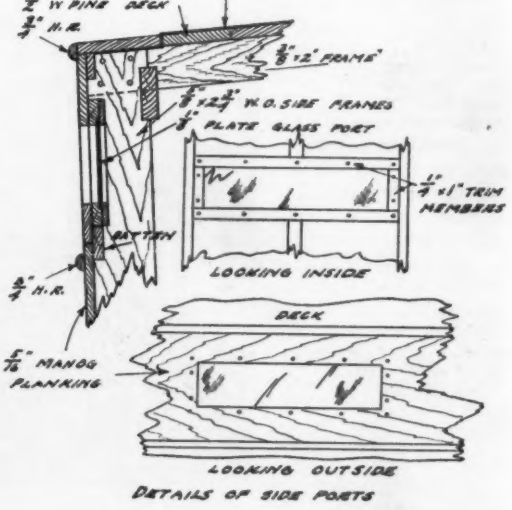
figures behind the design of Sure Mike and to tell you the reasons certain things are as they are.

First I'll tell you about her behavior. She will begin to plane strongly at between 15 and 17 miles an hour. She will plane with a total loaded weight of 1,428 lbs. at about this speed with an honest 35 h.p. mill on her transom. Higher powers will make it easier to plane with this load, and lower powers will make it harder. You see it is necessary to have the motor turning up this way, and for it to have whip and wallop. Up to the burble or planing point the propeller can hardly be expected to have much more than 50 per cent efficiency, or what is known as a propulsive coefficient of 50 per cent. This means that 17.5 h.p. is doing the work. Once up and on the step the wheel efficiency mounts rapidly and a higher percentage of power turned out by the motor finds its way through the wheel to react with the water, largely because of the greatly increased terminal velocities of both the water and the propeller tip speed.

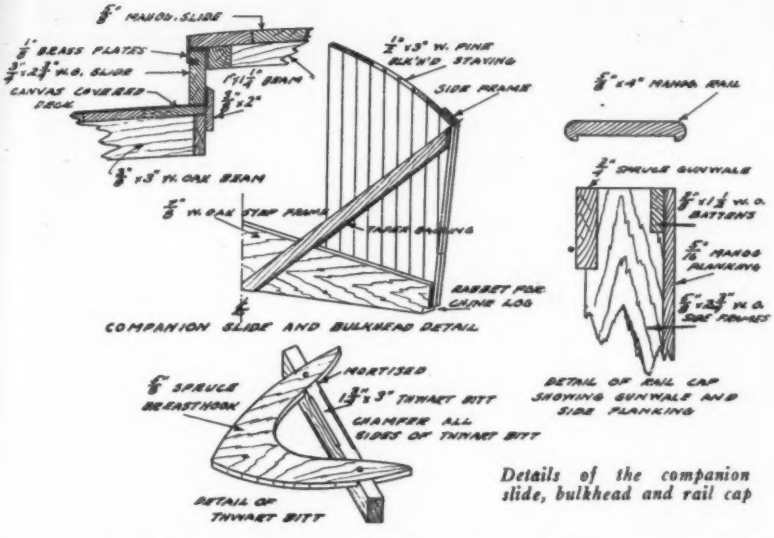
With loads beyond this Sure Mike will not plane, but will do about 9 or 10 miles an hour, drawing a fairly heavy wake. Seldom, however, will she be loaded as heavily as that. Dry she will weigh just under 500 pounds, and I have allowed 212 pounds for soakage in the 1,428 pounds displacement figure, so if she is beached and kept dry she will perform a lot better. With a 500 to 600 pound hullweight, and a crew of two, and nothing but the motor and a little fuel aboard, she should turn over the thirty mark nicely, using a three blade wheel with plenty of area. If she is not loaded so heavily but what she will plane, she will carry whatever load she gets on top with at around 25 to 30 miles. You can slow her down if it blows up, and you have a dry, buoyant and sea going little packet under you, and one that is a pleasure to handle in a wind alongside the average outboard cruiser with a greenhoused, skylighted and balconied topsides.

Now, about the design dope; where does a fellow begin when he starts out to design a hydroplane?

He begins by estimating his weight after the purpose and limitations of his boat are determined. In the case of Sure Mike the limitations and general advantages were determined by Mayfay, which cruised and slept two fellows all of one summer on Lake Superior, where the water gets as big as it does anywhere on the face of Mother Earth. The boat was a jim dandy—a perfect adjunct to a life that hundreds of men lead or would like to—that of the cruising vagabond content to live like a camper. A perfect little success, she fell into evil hands, and now



Section of side with detail of ports



Details of the companion slide, bulkhead and rail cap

sprouts a showcase type of deckhouse with a lot of pint sized rhubarb and a paraphernalia calculated to make the rainbow look like a lead pipe.

She was willing to take more punishment than her crew was, and more than that for the seaworthiness of any small boat cannot be said. Sure Mike gained much from Mayfay. One of the things was the idea of the sunken deck forward—fine for two to sit snugly down and ride along on, and fine for ropes and mooring machinery. No loss of accommodation, because in Mayfay the room was never available as anything except locker and stowage space forward of the bunk anyway. And great for coming into a dock in sloppy water!

Sure Mike owes a lot to the step idea and to the greater wallop that outboard motor makers have put into motors since Mayfay was designed. When I drew up her lines the hottest thing available—and it was hot—was the first 18 h.p. Elto Quad model which you can see is stepping along nicely at 17 m.p.h.. I calibrated Mayfay, and found that she would plane just over the hump had she had a step, as her weight per planing square foot per h.p. index was 1,020 (lbs.) ÷ 47 (sq. ft.) ÷ 18 h.p.) = 1.36 (index). She would have planed had it been as high as 1.71 (index). Today we have twice as much power to use!

So the step idea naturally suggested itself with her. And we have it in Sure Mike.

Here is the way I arrived at the weight of the hull: I took the major pieces and estimated their length and then their volume. This gave the percentage of one cubic foot of volume in all major members, like keel, planking, and so on. Multiplying the percentage by the weight per cubic foot of the material gave the final weight of the member. The finished table was like this,

WEIGHTS FOR SURE MIKE

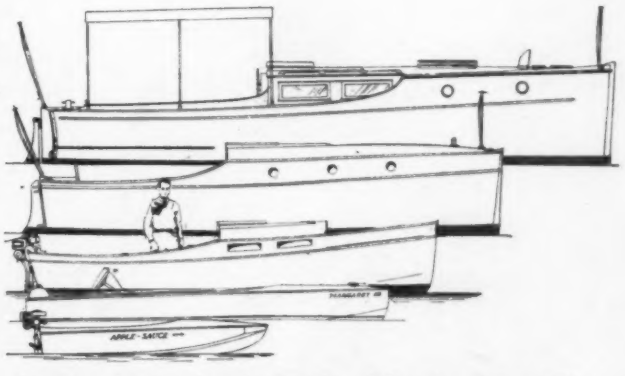
Keel—19 lin. ft. ¾ by 4 w. oak. vol. 78 cu. ft.	41.64	lbs.
Planking bottom ⅜ by spile mahog.—86 ft. @ .74 sq. ft.	63.66	"
Planking sides 5/16 by spile mahog.—79 ft. @ .70 sq. ft.	55.30	"
Decking—½" by Spile—w. p.—49 ft. @ 1.12..	54.88	"
Seats and floors 108 lin. ft. ¾ by 3 fir—27 ft. @ 1.98	53.40	"
Blkhd.—12 sq. ft. ½" w.p. @ 1.12 lbs./ft.....	14.00	"
Transom	23.00	"
Frames, clamps and carlins 187 ft. average ¾ by 3 @ 2.18.....	102.46	"
Total of major weights.....	409.10	"
Fastenings, ropes, paint, hardware.....	84	"
Total weight Sure Mike dry, very closely	495	"

This showed what the hull would weigh. Now, almost all naval architects draw heavily on experience when they plan a boat excepting where they are innovating something. And while Sure Mike was an innovation in type, I found a similar boat, as do all designers, which had a high performance, and which was loaded about the same, which had about the same power, and which was a very satisfactory boat. From this satisfactory boat I arrived at the proper bottom loadings.

I found my point of departure in Margaret III. Here was a lulu of a boat. She had a Pierce Budd engine of 25 rated h.p., but which was actually turning up about 36 h.p., or the same power I planned to work with. She also had better than a 36-mile an hour speed at times, and easily better than 30 on this power with a loaded displacement of 1,185 lbs. Her hull weighed 435 lbs. The motor weighed 235 lbs. Planing with this load and power she immersed 18.0 sq. ft. and ran on 29.4 indicated h.p. Using the same power loadings, but increasing the bottom area slightly to account for the 243 lbs. difference in displacement, I gave Sure Mike bottom area to correspond to Margaret's. In other words, I equated each immersed square foot of Sure Mike's bottom to the same loading as found per immersed foot in Margaret III.

I say, go ahead and build her. The methods will furnish themselves.

The procedure is thus: lay down the lines first. Then set up the frames bottom side up, and plank first the two garboard strakes fore and aft, then all of the topsides. Then complete the bottom. And you'll have to steam bend the keel to the curve shown between frame number 2 and 7, or it won't hold that shape so necessary to sweet performance in turning. There is no need to explain the sizes of different pieces as the plans are thoroughly complete, even giving the sizes of fastenings. In finishing, after thoroughly sanding, coat the boat inside and out with a mixture of half turps and half boiled linseed oil heated as hot



A comparative drawing showing the relative size of Sure Mike, center, with other well known designs, above, Ponset and Shorty, below hydroplanes Margaret and Apple Sauce

as you can get it in a double boiler. Then the varnish will stay put and the boat will look like a piano.

There are only two or three other things that I think of as pointers that might come in handy. One is about the use of either nails or screws on the battens. Use either, as per the details. Whichever is most convenient for you. And finish the heads bright, sanding right over them.

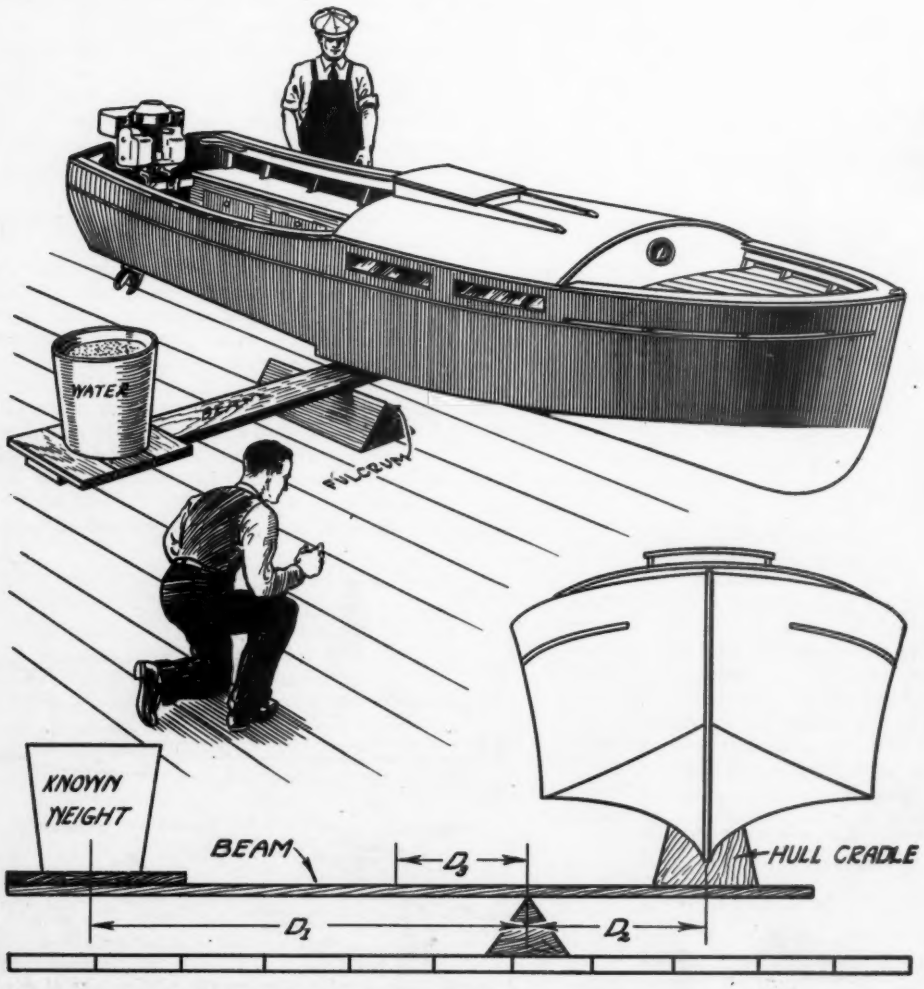
When the boat is done you can check your weights as shown in figure 4. It is an old application of the law of levers we used to get in physics classes in school. The weight of the hull times D_2 equals (known weight times D_1 plus the weight of the beam times D_3). Knowing all distances and the weights to the left of the fulcrum it is a simple matter to solve for the weight of the boat. I mention this so you can check balance and weight if you are in doubt as to her performance. The center of weight is at the point indicated in the drawing of the lines.

Incidentally, on closing, let me explain the curve of areas. I doubt if many of you have seen a curve for a hydroplane before. It is constructed like all wave form theory curves. The generating circle is set up at the midsection as though it were going to be the section of greatest area. This is, of course, at the step. Then the usual curve of versed sines is drawn from the midsection to the bows, as though it were the bow portion of a normal wave form theory vessel. This is thought to help ease of driving at non-planing speeds.

Then the curve of the immersed portion aft of the step is drawn in, and this curve is a function of the way you set the aft plane for its running qualities. In other words, the curve of the aft portion of the hull is determined by the immersed volume rather than drawn first and then determining it. It is just drawn in to complete the picture, and to keep the immersed areas of the stations in a fair curve.

So that is that. If I were you, in painting the boat, I would coat the interior of the cabin white, and the rest of the boat I would varnish and polish to a fare-ye-well the first season, and then smother with paint the second season, and after that she'd be broke in and you'd be getting that kind of satisfaction that comes from a boat well broken to the harness, or from a pipe with a sweet cake in it.

For the benefit of those readers who plan to build Sure-Mike, blue print copies of the designer's drawing can be supplied to a scale of ¾ inch to the foot. The cost of these is moderate and they can be secured by addressing the Editor, MoToR BoatinG, 959 Eighth Avenue. A circular describing many useful books of boat designs will also be supplied on request.



How Sure Mike will look when completed and how it can be weighed by simple means before it is launched

MoToR BoatinG's Bu

SEE DETAIL FOR RUDDER, TILLER, TRAVELLER ETC.
SEE DETAIL FOR CENTRE BOARD AND TRUNK
HEAD PIECES FOR TRUNK 3/8 OAK
MAST STEP
BOTTOM PLANKING
SISTER KEELSON 3/4 x 2 OAK
INSERT NOT SHOWN
MAST BRACE 3/8 OAK
KEELSON 3/4 x 6 OAK
BOTTOM 9/16 THICK CEDAR, CROSS PLANKED NOT OVER 5 WIDE
STERN 3/8 W OAK
STERN
STA. 5
STA. 3
MAST IS ABAFT STA 1 RAKES 2 1/2 IN 10
CENTER BOARD 3/16 THICK BRONZE PLATE
BOTTOM
CENTER BOARD
DECK
STA 6
STA 4
STA 2

ıild A Boat Series

"TURNOVER"

A 17 FOOT SAILING BOAT

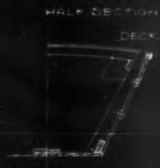
Designed Especially for

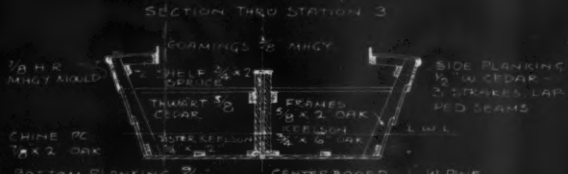
MOTOR BOATING

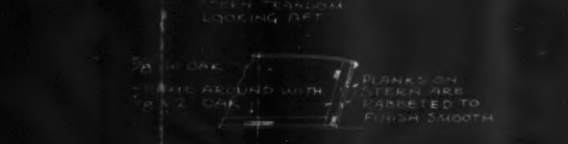
FIFTY-SEVENTH STREET
AT EIGHTH AVENUE
NEW YORK, N. Y.

By WILLIAM ATKIN

Scale: ⅜ In. = 1 Ft.




SECTION THRU STATION 3
COAMINGS ⅝ MAHG.
⅛ M.H.R. MAHG. MOULD
SHELF ¾ x 2 OPEN
TRANSOM ⅝ CEDAR
FRAMES ⅝ x 2 OAK
KEELSON ¾ x 6 OAK
SIDE PLANKING ½ W. CEDAR 5 STRAKES LAP RED SEAMS
CHINE PC. ¾ x 2 OAK
BOTTOM PLANKING ⅝ W. CEDAR FASTEN WITH BRASS SCREWS
CENTERBOARD 1" W. PINE SLOT ⅜ WIDE FASTEN WITH 4" LONG NO. 14 SCREWS



TURNOVER, A 17 FOOT BOAT

Being a Sensible Little Craft in Which Youngsters and Oldsters Can Learn to Sail

Designed especially for MoToR BoatinG

By WILLIAM ATKIN

Part I

THE man or boy who knows how to sail a small boat has a keen appreciation and a very genuine respect for the ways of boats and water. With the knowledge gained in sailing small craft we are all far better trained and better fitted to operate motor driven yachts. There evidently are a great many readers of MoToR BoatinG who are interested in small sailing boats because I have had many letters asking for the plans of a small craft in which the boys can learn the art of sailing, and which three or four persons can use for afternoon sailing. No use talking there is a charm about a sailing boat that one with mechanical power lacks. Perhaps not so practical in this age of schedules and speed; but blessed to the man who looks upon tomorrow as being precisely as good as today.

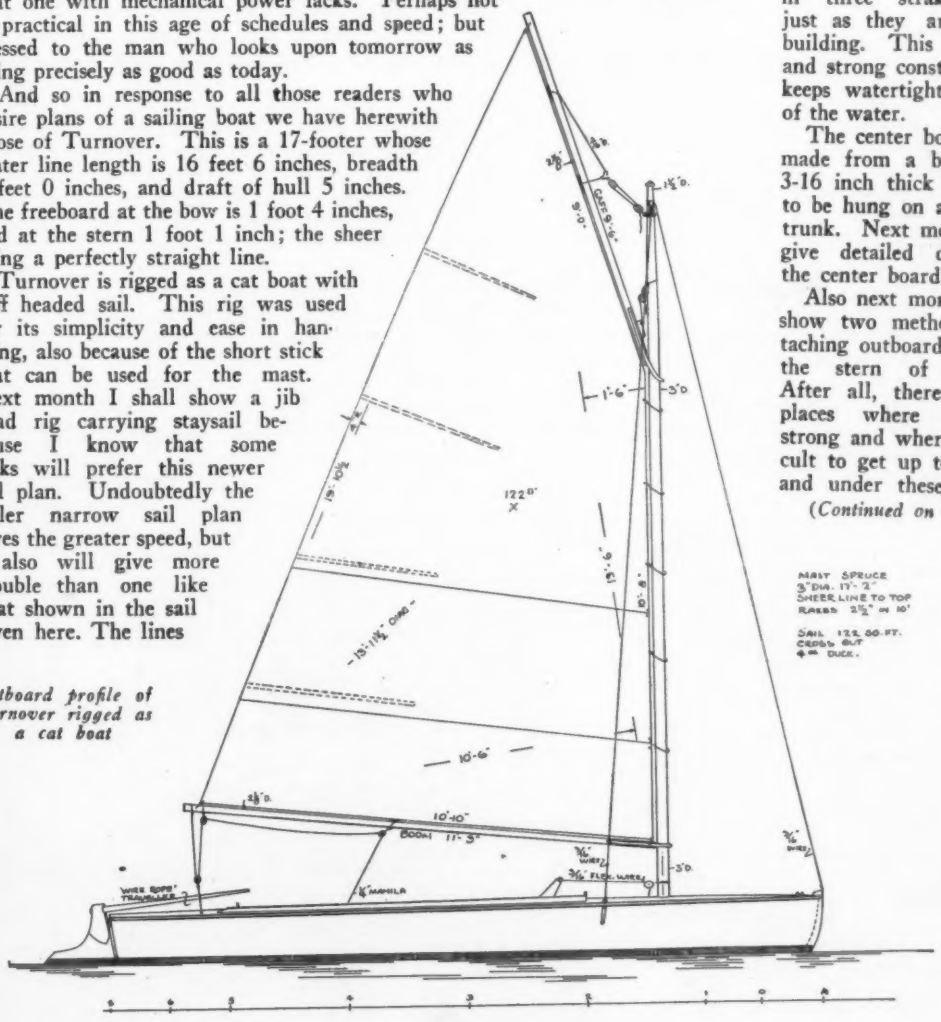
And so in response to all those readers who desire plans of a sailing boat we have herewith those of Turnover. This is a 17-footer whose water line length is 16 feet 6 inches, breadth 5 feet 0 inches, and draft of hull 5 inches. The freeboard at the bow is 1 foot 4 inches, and at the stern 1 foot 1 inch; the sheer being a perfectly straight line.

Turnover is rigged as a cat boat with gaff headed sail. This rig was used for its simplicity and ease in handling, also because of the short stick that can be used for the mast. Next month I shall show a jib head rig carrying staysail because I know that some folks will prefer this newer sail plan. Undoubtedly the taller narrow sail plan gives the greater speed, but it also will give more trouble than one like that shown in the sail given here. The lines show a flat bottomed boat. I mentioned last month that this would be a V-bottom model. However, because of the greater difficulty of building the latter I thought best to keep the thing just as simple as possible; and there is no model easier to build than the flat bottom. Cross planking is used for the same reason; I know that the seams extending across the boat create a lot of resistance, but if the hull is nicely planed off and well fastened the cross planking will be satisfactory. I feel sure that the ease of building will more than offset the slighter roughness of the athwartship planking. The side planking will be laid in three strakes lapped, just as they are in skiff building. This makes light and strong construction and keeps watertight in or out of the water.

The center board will be made from a bronze plate 3-16 inch thick and this is to be hung on a pin in the trunk. Next month I shall give detailed drawing of the center board and trunk.

Also next month I shall show two methods for attaching outboard motors on the stern of Turnover. After all, there are many places where tides run strong and where it is difficult to get up to moorings, and under these conditions

(*Continued on page* 94)



Outboard profile of Turnover rigged as a cat boat

SMALL MOTOR BOATS

Their Care, Construction and Equipment

A MONTHLY PRIZE CONTEST CONDUCTED BY MOTOR BOATMEN

Questions Submitted for the December Contest

1. Describe the best method for handling the drip from ice boxes when the ice box is located at or below the water line.
(Submitted by E. N. A., Camden, N. J.)

2. Can plywood and the other large sheets of wood-like material now available be used to advantage by the amateur boat builder? If so state how to select such material and where it should be used for best results.
(Submitted by L. R. K., Philadelphia, Pa.)

LOCATING AND MARKING THE WATERLINE

Useful Hints and Suggestions for Scribing and Painting the Boat's Waterline in a Shipshape Manner

Answers to the Following Question, Published in August MoToR BoatinG

Explain and illustrate an approved method for the amateur to locate and mark the waterline on a boat.

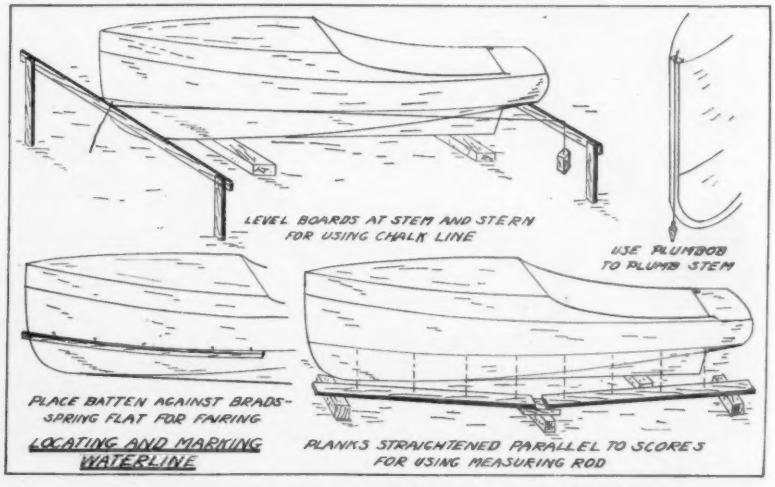
A NEAT WATERLINE

(The Prize-Winning Answer)

THE painted waterline, or more properly the boot top is parallel to the actual waterline and two or three inches above, depending on the size of the boat. A nice straight, clean cut waterline with two or three inches of boot topping improves the appearance of any boat, but a ragged and uneven waterline spoils the looks of an otherwise neat and trim craft. Everything is in favor of the properly located and marked waterline and there is but little excuse for it being otherwise. At the time the boat is designed the waterline is carefully located by calculations of the designer. When laying down the boat, it is common practice to score this line on the stem and stern of small boats. These calculations are not so simple and are beyond the average amateur boat builder. They are based on the weight of the entire hull and equipment and the distribution of the weight. A formula can be used with good success by one having had plenty of experience and knowing the weight and location of the various fixed and movable weights. If a new boat, the waterline should be given on the plans. If the boat has been built over and a new engine installed, it is very unlikely that the waterline will still be in the right position.

The most practical method for the novice to locate the waterline is to paint the boat all white or grey and put it overboard, with the engine and all equipment aboard and the tanks filled. Then, go alongside with the tender and mark the point, at the stem and stern, at the edge of the water and also at several places along the sides. You can use a pencil but the marks may be accidentally erased before the waterline is permanently marked. A good way is to drive brads at the water's edge and after raising the marks for the boot top, remove the nails and putty the small holes. By leaving the boat in the water several days a watermark will show at the water's edge, which mark can be raised and faired to show the desired boot topping.

If the new waterline *(Continued on page 98)*


LEVEL BOARDS AT STEM AND STERN FOR USING CHALK LINE
USE PLUMBOB TO PLUMB STEM
PLACE BATTEN AGAINST BRADS-SPRING FLAT FOR FAIRING
LOCATING AND MARKING WATERLINE
PLANKS STRAIGHTENED PARALLEL TO SCORES FOR USING MEASURING ROD

Several simple methods of determining a straight waterline as suggested by W. B. M.

INSTALLING AND MAINTAINING REVERSE GEARS

The Successful and Continued Operation of Reverse Gears Will Depend Greatly on Their Correct Installation and Operation

Answers to the Following Question, Published in August MoToR BoatinG

Describe and illustrate the installation of a reverse gear and give suggestions for maintaining and operating same to insure satisfactory and reliable performance.

INSTALLING A REVERSE GEAR

(The Prize-Winning Answer)

REVERSE gears are allied to the transmission of the automobile but also include in their make-up the clutch. Not like the auto part the marine reverse gear provides for neutral, ahead and reverse rotation of the propeller only. The general type now in use consists of a multi-plate clutch which when engaged provides the ahead movement while for reverse the plates are disengaged and a constricting band stops the movement of a gear case, the train of gears therein being made to revolve properly to turn the propeller shaft in the opposite direction.

It would be well to understand the full operation of the gear to enable the user to take proper care of the unit as well as to be able to take it down and repair any parts that may be worn after several seasons use.

Sketch No. I illustrates a type of gear that is not used but simplifies the operation, diagrammatically. For ahead rotation of the propeller shaft the clutch C is engaged which forms a straight connection to the engine shaft. For reverse the clutch C is disengaged while clutches B, and D engage gear A, and E with the engine and propeller shaft respectively which through counter shaft and gears K, G, and F impart the reverse rotation. As mentioned this type of construction is not used as the gear manufacturers have designed a more compact gear along the lines of Figs. 2, 3, and 4.

The gear in Sketch No. 2 in operation, in neutral position allows the gears A, BB, and C to revolve about one another freely and cause no friction on the multiply plates. When thrown ahead the dogs press the plates M and H together. This causes a direct connection between the engine shaft and propeller shaft while the gears revolve as a fly-wheel. In reverse the band binds the bevel gears BB and holds them still. In this manner the rotation of gear A, keyed to the engine shaft, transmits its turning power to gears BB, and they in turn revolve gear C in the opposite direction to A. Bevel gears BB are allowed to turn only about their central shaft axis in the collar F. As gear C is connected to the propeller shaft, reversal is thus obtained.

The gear in Fig. 3, when in neutral position, the bushing L revolves with the motor and the gears C revolve idly on A, also the gears D revolve on B which is floating freely, hence no motion ahead or astern. To go ahead, the plates G, and H are brought into contact forming a clutch, by the dogs. This firmly fixes the gear B to the propeller shaft. In reversing the band F is tightened and the housing E and gear B are held stationary. In this manner the rotation of the engine shaft is imparted to the bushing L, which causes gears DC to revolve about gear B and turn gear A, the last being keyed to the propeller shaft. Gear No. 4 is simply explained as when the plates D and E are engaged the whole unit revolves while in reverse operation the housing F is fixed from turning by application of the band which imparts reverse action to the case A through gears BB, and C which is fixed to the engine shaft. A careful following through of the gear turning will show the proper action better than the description.

The installation of a gear is generally made with the engine as a unit as most all power plants are fitted and housed as one unit. When the gear is separate,

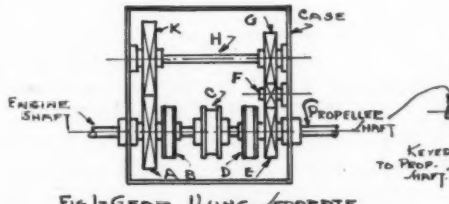


FIG 1-GEAR USING SEPARATE COUNTER SHAFT.

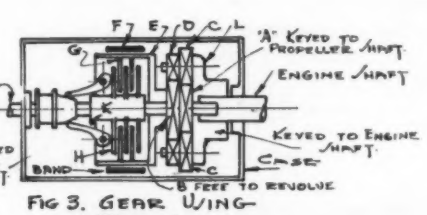


FIG 3. GEAR USING TRAIN

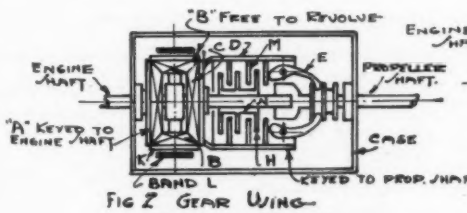


FIG 2 GEAR USING BEVEL GEARS.

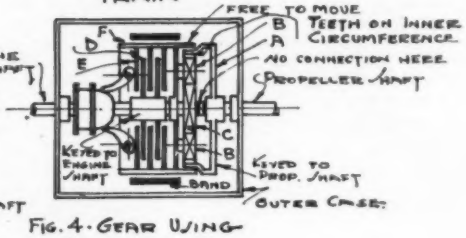
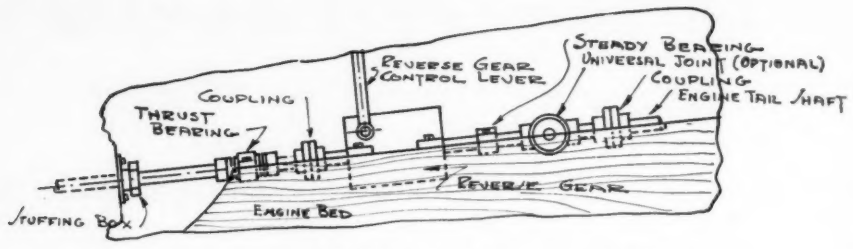


FIG. 4. GEAR USING GEARED CASE.

H. S. shows the operating arrangement of several standard type reverse gears



A typical separate reverse gear installation

care must be taken to line up the connection with the engine shaft and propeller couplings to prevent any mis-alignment which will cause wear to the gear plates and parts. It would be best in this case to provide a universal joint either between the gear and the engine or between gear and propeller shaft connection. As a general rule reverse gears do not come fitted with thrust bearings. In the unit power plant the thrust is taken up through bearings fitted around the tail shaft and to the housing. This means where a separate installation is contemplated that it will be necessary to provide a thrust bearing aft of the gear. The installation of thrust bearing and universal joints are illustrated in Fig. 5.

It is advisable but not necessary where a universal joint is fitted between gear and motor that a steady bearing be provided aft of the universal to prevent mis-alignment, and undue vibration to the gear.

It is absolutely imperative that the gear be of proper size to take the full load of the engine and it is advisable to write the manufacturer explaining all of the motor's characteristics so that the proper size may be ordered.

A proper sized gear in good condition or new will last several seasons without any attention other than a few minor adjustments to the band and dogs. By all means keep the gear well lubricated and see that the manufacturer's instructions are fulfilled. It would be well to flush out the gear occasionally and after several season's use to take it down completely and replace any parts that seem to have been worn, as such attention will provide the long life and reliability desired.

Allied to the gear are remote controls which are so frequently used. Several types that have proved popular are sketched for guidance. H. S., New Orleans, La.

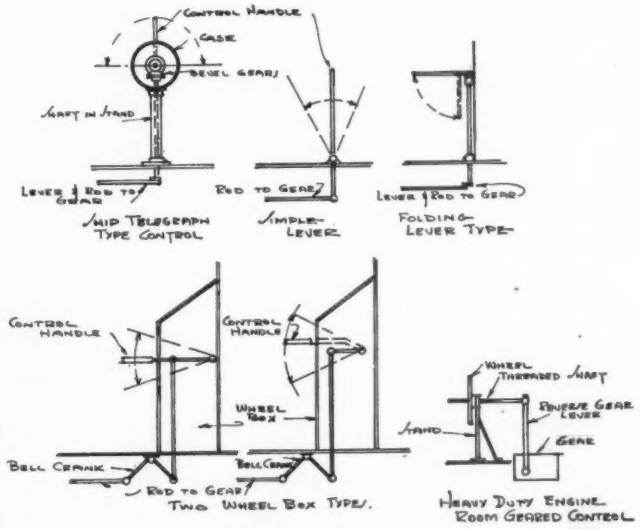
CORRECT ALIGNMENT IMPORTANT

IT is essential that the motor and the reverse gear be in line. The comparative shortness of the reverse gear as compared to the average motor makes it possible to connect them out of line when to all appearances they are correctly aligned.

The use of angle irons will insure correct alignment. These irons should extend from the extreme end of the forward engine support to the final bearing point of the reverse gear.

Through bolts running through the engine stringers, angle irons and the flanges of the engine and the reverse gear will tie together all these elements and insure, not only a good alignment, but a rugged foundation. (Fig. 2)

The modern reverse gear has flange couplings at each end to facilitate quick assembly. This type of coupling lends itself readily to correct adjustment. Connect up the motor and the reverse gear to the propeller shaft. Set every- (*Continued on page —*)



Several types of popular reverse gear control arrangements suggested by H. S.

RULES FOR THE PRIZE CONTEST

READERS are urged to consider the above questions for the December issue, and send answers to them to the Editor, MoToR BoatinG, 57th Street at Eighth Avenue, New York, N.Y. Answers should be (a) in our hands on or before October 25, (b) about 500 words long, (c) written one side of the paper only, (d) accompanied by the senders' names and addresses.

The names will be withheld and initials used.

QUESTIONS for the next contest must reach us on or before October 15. The editor reserves the right to make such changes and corrections in the accepted answers as he may deem necessary.

The prizes are: For each of the best answers to the questions above, any article or articles sold by an advertiser advertising in the current issue of MoToR BoatinG of which the advertised price does not exceed $25 or a credit of $25 on any article which sells for more than that amount. There are two prizes—one for each question—but a contestant need send in an answer to only one if he does not care to answer both.

For answers we print that do not win a prize we pay space rates.

For each of the questions selected for use in the following month's contest, any article or articles sold by an advertiser advertising in this issue of MoToR BoatinG of which the advertised price does not exceed $5, or a credit of $5 on any article which sells for more than that amount.

All details connected with the ordering of the prizes selected by the winners must be handled by us. The winners should be particular to specify from which advertisers they desire to have their prizes ordered.

O-V-I-N-G-T-O-N'S . . . S-O-S

SEND OUT SOME SMART SERVING THINGS! SEND OUT SOME SMART SERVING THINGS! OUR SHIP'S NOT FLOUNDERING BUT SKIPPER'S REPUTATION AS A SEA-GOING HOST IS SINKING IN THE EYES OF HIS DINNER GUESTS! (*Signed*) SPARKS.

MISTER, you're proud of that rakish lugger of yours. You want it right as a trivet from keel to top gallant, from the sheen of its brass to the tilt of your visored cap.

And certainly you want sea-going china and crystal . . . china born to the wind and the wave . . . crystal that takes to the great salt spaces like a whale's progeny or a fledgling gull.

These are the services you'll find at Ovington's . . . nautical and nice. Every piece made to your order and delivered alongside two weeks after the design is approved. For as little as $63 you can choose a china service for six, decked and emblazoned with your club and house flags. And for even less you may snare its matching crystal. Toss your derelict goblets to Davy Jones and send for the man from Ovington's.

OVINGTON'S

"The Gift Shop of Fifth Avenue, Inc."

437 FIFTH AVENUE

NEW YORK, N. Y.

YARD AND SHOP

Notes of Interest to Both Owner and Manufacturer

TROPHY WINNERS

THE month of August saw several more boating laurels won by Kermath-powered Hackercrafts in the runabout races held at the various race meets in America.

Of notable interest was the retention of the Fountain Speed Boat Trophy by Fremont B. Abrams of Bellport, Long Island, in the Great South Bay Yacht Races held at Bay Shore, Long Island. The photograph below shows Mr. Abrams' boat Jen, a two-year-old Hackercraft powered with a 200 h.p. Kermath. This boat also took second place in the 250 h.p. class of fast speed boats.

Commodore Swarthout of the Maryland Yacht Club and Jack Stewart, owners of the 26-foot Hackercraft Bob Jack, won the Severn River Trophy with their 225 h.p. Kermath.

Pep II, owned by J. W. Bramble, another 26-foot Hackercraft, swept the field in the standardized runabout events, taking the Niles River Trophy and the Chesapeake Bay championship. John J. Raskob won in the class event for his 24-foot Gray-powered Hackercraft.

Charles Somers of Brooklyn, New York, placed first in the Burlington races on Lake Champlain with still another 26-foot Kermath-powered Hackercraft.

During the International B. I. T. Trophy Races held in Detroit a 30-foot Hackercraft with a 225 h.p. Kermath made a speed of 44.07 miles per hour over a course of two nautical miles in the official time trials.

Gar Wood and Charles F. Kettering, General Motors' inventive genius, try out Gar's newest model, the stock 55 powered with a 400 h.p. motor

MARINE SALES AND SERVICE IN FLORIDA

A complete new marine sales and service organization has recently been established by C. J. Pope, who will be remembered by the trade as having been connected, for a number of years, with the Universal Motor Company of Oshkosh, Wisconsin, in the capacity of sales and export manager. Mr. Pope is now active in the sale of marine motors and boats and on September 1 opened a new office in St. Petersburg in the marine district near the waterfront at 242 Seventh Avenue South.

Mr. Pope is the sales representative for Universal and Kermath engines and for the boats manufactured by Dwight, Dunphy, Fremont, Atlas and the Detroit Marine Construction Company. He is now engaged in building up a sales organization which already covers practically every part of Florida and which consists of more than sixty-five active dealers. He is concerned not only with marine sales but is laying great stress on the service feature as he feels that this particular branch of the organization will be greatly appreciated, especially by boatmen from outside the state who spend a portion of their time in Florida. With him is associated his son, C. A. Pope, who is not only an experienced boatman but who has also had much practical experience in the building and testing of marine engines.

BOSTON BROKERAGE SERVICE

A new yacht brokerage service, known as the Boston Yacht Sales, Inc., has been opened in Boston at 126 State Street, by Ashley D. Adams, formerly vice-president in charge of retail sales and manager of the brokerage division of the Noyes Marine Company.

Ashley Adams, well known in Bay State yachting circles, was previously head of the brokerage department of Eldredge-McInnis, Inc. During the war he was skipper of a U. S. destroyer in the North Sea patrol, later being assigned to the supervision of government shipbuilding throughout Maine boat yards.

The Boston Yacht Sales will specialize in commuting and cruising craft chiefly, and plans to take on the New England distributorship of a line of stock cruisers in the near future.

(*Continued on page* 62)

At the Great South Bay Regatta held at Bay Shore, L. I., F. B. Abrams' Jen, a 200 h.p. Kermath-powered Hackercraft, won the Fountain Speed Boat Trophy

For Your Florida Season

ARE you going to "winter" in the Florida semi-tropics? Can you think of a better way in which to enjoy Florida's marvelous climate, water sports, cruising or fishing than to have a fast, smooth running, sea-going cruiser that is a complete home? A craft having every convenience of your own residence and large enough for all of the family to live aboard in comfort, yet small enough for owner-operation, if desired? A boat in which safety and comfort are the governing factors of design? Vinyard offers you, for immediate delivery, a choice of either a fifty or fifty-five foot twin-screw motor yacht which not only gives the maximum in sea-going comfort, but the highest degree of safety, honest quality, expert workmanship, vibrationless performance at all speeds and real operating economy. In becoming the owner of a Vinyard you take command of a craft that has been pronounced by long experienced yachtsmen as a boat without a peer.

You can start your Florida cruise from our plant at Milford any time this fall or winter. Just pack your wardrobe and play togs. That's all you need, because Vinyard cruisers are complete with linen, china, silver, cooking utensils, blankets, drapes, carpets, etc. You can have your Vinyard provisioned here ready to cast off the instant you arrive.

Fully equipped and ready for service, Vinyards are priced at

The "50" - $23,500
The "55" - $27,500

Wire now for demonstration. Catalogue on request

VINYARD Ship Building Company
Milford, Delaware

THE WANDERER—OF LIVERPOOL

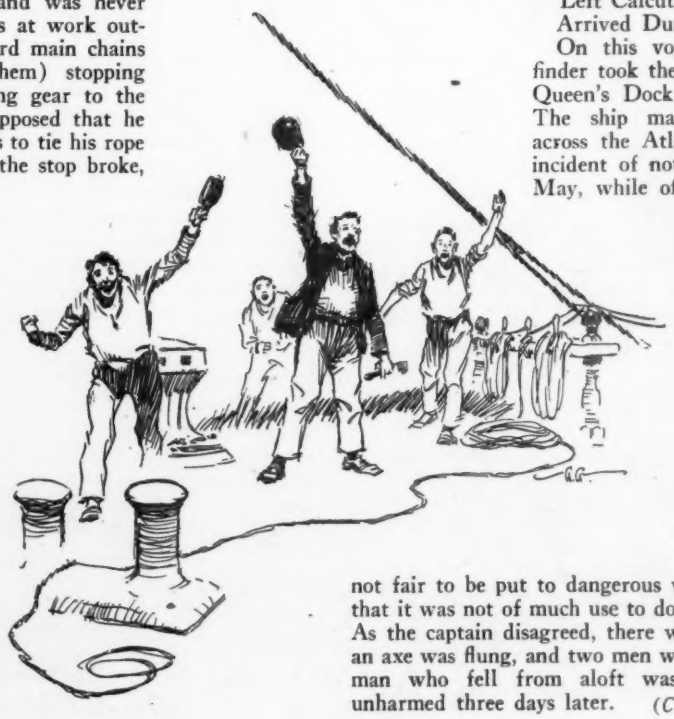
(*Continued from page* 25)

return. They worked thenceforward to clear the coal from the seat of the fire. Many of the tubs came up with the coal in them red hot. The 16th and 17th March were spent in flooding the hold. Black smoke poured from the ship's hatches; men worked night and day in intense heat, while a great crowd watched from the shore, expecting an explosion and a rush of flames up the main and mizzen rigging. Captain Brander remained on deck until the fire was declared out.

After discharging the coal the ship lay for some time at Sausalito, where she stranded on the mud, without suffering much damage. While lying there a man fell overboard from the main topsail yard, but was picked up none the worse. Later on, a man fell from the jigger truck to the deck. He broke his fall upon a teak spreader which Captain Brander had caused to be fitted some days before. He broke the spreader, and fell to the deck with it, fracturing both his legs, but being otherwise unhurt. But for the spreader he must have been killed.

The day after sailing from San Francisco a newly shipped seaman, who had been a nuisance from the first, refused to obey any orders, became most violent, used abusive and threatening language, and finally jumped overboard. The ship was then almost becalmed, so that he was not left astern. After he had swum for some time and was judged to be cooler, he was told to come on board. He replied that he was going to swim home. However, when he wearied of this plan he returned to the ship's side, where a man flung a bowline to him. He refused to use the bowline, and demanded that the crew should hoist him up. He was only rescued with much difficulty.

Two days later, in the first dog-watch of the 22nd, a man named Robert Jackson, from Yorkshire, aged 22, fell overboard and was never seen again. He was at work outboard in the starboard main chains (somewhat above them) stopping up the heavy running gear to the swifters. It was supposed that he was using both hands to tie his rope yarn stop, and that the stop broke, causing him to lose his balance, fall backwards, and strike his head in falling. A buoy was flung to him (which marked the sea) and the ship was brought to the wind and a boat lowered. His cap and the lifebuoy were picked up, but the man was gone.



The ship made a good average passage home to Queenstown. She was among drift ice and bergs for four or five days after rounding the Horn, without receiving damage. She showed herself extraordinarily handy and swift in light airs, and was strong enough to be driven in a full gale. She anchored in Monkstown Bay, Queenstown, after a good average passage of 110 days. The seaman who had jumped overboard and refused duty, whom the mate considered a rowdy and a consummate scoundrel, was sent to prison for six weeks. A mutinous Scandinavian sailor who had given some trouble was fined fifty shillings and paid off.

After lying for some weeks in Queenstown, the ship was towed to Liverpool, her cargo discharged, and an examination made lest her stranding and the fire should have damaged her. It was found that she had been panting right aft in the lower hold, and that some of her beams were twisted from the heat of the fire. She was stiffened aft with web frames, and the damaged beams were made good.

THE SECOND VOYAGE

Captain, John Brander,
Chief Mate, C. Kain,
Second Mate, Thomas Baker,
Third Mate, Richard Tinsley.

Sailed from Liverpool May 10, 1893. In ballast with 1,637 tons of general cargo.

Arrived Philadelphia, June 8. Discharged ballast at Port Richmond. When empty, she was examined by some American ship designers, who were much impressed by the strength and beauty of her construction.

Shifted to Point Breeze, July 14.
Left Philadelphia, July 29.
Arrived Budge Budge, November 24.
Towed to Calcutta, January 9, 1894.
Left Calcutta, February 12.
Arrived Dundee June 8.

On this voyage, the tug Pathfinder took the Wanderer from the Queen's Dock down the Channel. The ship made a good passage across the Atlantic, with only one incident of note. On the 23rd of May, while off the Banks, a man who was painting the mizzen royal yard fell from it to the deck. This took place in wet weather when all who were painting aloft were wearing oilskins. The men attributed the fall to the fact that the man who fell was wearing oilskins. They complained to the captain that it was not fair to be put to dangerous work in oilskins, and that it was not of much use to do painting in the rain. As the captain disagreed, there was some disturbance, an axe was flung, and two men were put in irons. The man who fell from aloft was back at his duty unharmed three days later. (*Continued on page* 106)

FIRST
FIRST
FIRST

In the Mid-East regatta at Marietta, August 23, Ray Pregenzer driving a "4-60" wins the coveted Dawes Trophy in three straight heats.

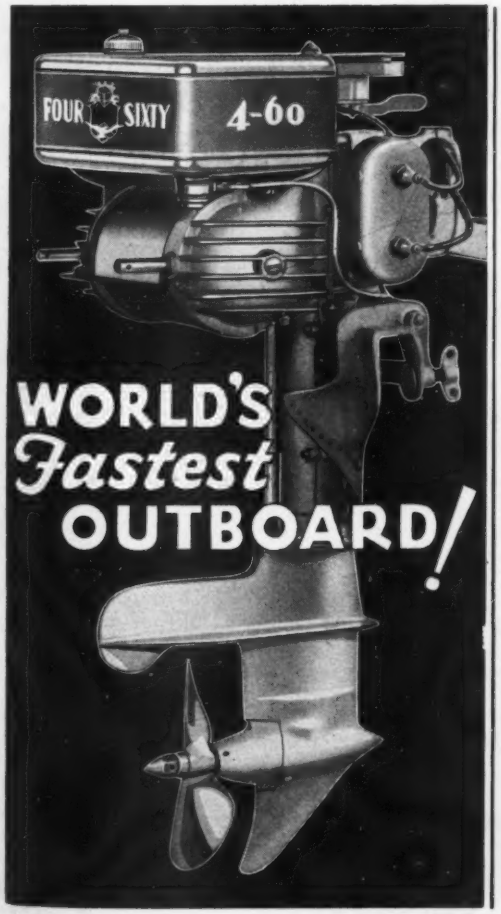
In the Harmsworth Regatta at Detroit, September 1, "4-60" takes first in the free-for-all, Divisions 3 and 4, first in Division 2.

In the Canadian National Championship races at Toronto, September 6, "4-60" takes first — second — third in the Free-for-all.

First in the above conspicuous events — "4-60" is being driven with equal success in regattas in every part of the world. Among scores of other important victories in top-class and free-for-all races are spectacular wins in regattas at Albany, Biloxi, Madison, Indiana; Rochester, Westerly, Rhode Island; Fox Lake, Illinois; Bay City, Michigan; Houston, Lakeport, California; Paterson, New Jersey; Chicago, Terre Haute, South Bend and Worcester.

4-60

Sold by
EVINRUDE · *Elto* · LOCKWOOD
Dealers throughout the world



WORLD'S fastest outboard motor! Not only fastest in competition, but holder of the official record for greatest speed in time trials. At Fox Lake, Illinois, Ray Pregenzer, Jr., set a new mark of 49.723 miles per hour for six laps of one mile each.

Though definitely a racing motor, "4-60" offers the stamina and dependability of a service model. Develops 45 horsepower. Four cylinders, 60 cubic inches piston displacement. Ball and roller bearings on connecting rods, crankshaft, drive and propeller shafts. Gearless rotary valve with large case-hardened crankshaft of chrome-nickel steel. Closed circuit battery ignition. Price is $450.00 f. o. b. Milwaukee.

$3500 Awards!

Ole Evinrude offers $3500 in cash or trophies of equivalent value to the first "4-60" drivers making 50, 55 and 60 miles in competition, 55 and 60 miles in time trials.

Write for full details.

OUTBOARD MOTORS CORPORATION
OLE EVINRUDE, *President*
5128-27th Street Milwaukee, Wisconsin

Nearly all the shores of the Aegean islands are forbidden, but there is always beauty in the distant views

FIRST TASTE OF AEGEAN WEATHER

(*Continued from page 29*)

Dardanelles . . . is much accelerated by the strong northerly or northeasterly winds . . . and . . . the British naval vessel Sentinel experienced (in Doro Channel) a southerly set of seven knots."

Exaggeration? My derisive laughter was carried by the Meltem to the very portals of Poseidon's temple, and the great sea god was offended. We tacked to eastward and in a gentle northeasterly came to the north point of Keos, where, according to dictum, a calm set in and I observed a drift toward the deadly rocks of the island. But with a gesture of contempt for the Coast Pilot and such-like Jeremiahs I went below and started the motor. Calms be blowed, current be blowed, leeward rocks and unfathomable depths, all be blowed. We had an auxiliary and when the wind blew we could sail, and when it dropped we could motor, and we were bound for Andros Island dead to windward and we'd get there despite all.

Andros seemed a desirable destination because on the western face of the island in the midst of a myriad of Greek names there occur on the chart the simple words "Fresh water." There was a romantic compulsion in this brief phrase, with its connotation of oldtime sailing ships pitting their square sails against the Meltem and seeking port to fill their empty tanks and refresh their thirsty crews.

Well, we didn't get there, having laughed once too often at Poseidon and his apostles. At one P.M. we were becalmed. At one-thirty we had plenty of wind and Andros, distant less than twenty-five miles, seemed as remote as the Gulf of Tokyo, and we altered course for Syra. And at two o'clock we were in the thick of all the grief the Coast Pilot had threatened. Plus a few little items that hadn't occurred to Gloomy Gus. We were, in short, not more than a mile from a ghastly lee shore in a forty-mile blow which was momentarily kicking up a walloping big sea, and we were in a devil of a mess onboard.

The trouble was intrinsically slight, and after it was all over I had time to wonder how many sailing ships have been lost at sea because of some trifling inattention to detail. A great many, I'm certain. We lowered the forestaysail and it came down and was furled with the usual smoothness, despite the jumping sea. Looking about I observed that though the sun still smiled upon it the blue Aegean was becoming very angry. The waves leaped and covered their blue summits with lather. Suddenly (and miraculously) the kaikis had disappeared, leaving but one of their number which under shortened canvas scudded off before the rising wind.

It seemed like a good time to reef. I clung to the pin rail and started to roll down the main, and because the reefing ratchet is on the starboard side and we were sailing the port tack I had to roll in without watching the outer end of the boom. And P. L. was occupied with steering and with giving me a luff now and then without hanging in stays. So my sins found me out. Inadvertently I had made the boom claw lanyard fast to the boom itself instead of to the swivel at the end of the boom. In another absent-minded moment I had neglected to top up the boom lift. In the space of a few seconds the lanyard and the topping lift were wrapped around the boom, along with the sail, and we could neither roll in more nor shake out what I had taken. Nor, with the jib pulling like a race horse and the mainsail slack and spilling could we come up and lower away.

I gave vent to a few choice epithets which come spontaneously on such occasions, and as a first venture let go the lee jib sheet to relieve the pressure on the little ship's head. But straightway the jib, free of the restraining influence of the sheet, set up a terrific clatter and I had sense enough to realize that if I didn't bowse it immediately there'd be none left to bowse. So, with a stop or two ready to hand, I slid out on the plunging bowsprit and when P. L. let go the halliard hauled down and secured the jib.

Now with only the mainsail set, and that only half set, we came into the wind with a will. We did more. We fell away on the starboard tack, jibed to the port tack, and danced a thoroughly crazy course over the crazy, whistling sea. But the mainsail came down and when its boom was in the rest and we had control of it, I cleared the devilish foul, transferred the claw lanyard and took another breath.

During these few minutes the seas were punching us with a vindictiveness which they never seem to dare against a boat under control, and one struck our starboard beam and broke clear aboard. I was about to hoist away when I noticed that we had overridden the dinghy and capsized it. Mistake number three. Having once lost a towed dinghy it is part of the articles of my religion never to tow one in the open sea. But our previous experience in Grecian waters had been so idyllic that I had forgotten this part of my religion. Here I was paying the penalty of the ungodly.

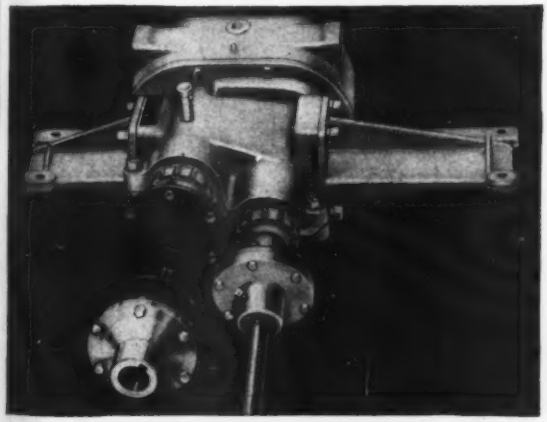
It seemed impossible to make any satisfactory amends. Although the dinghy is canvas-covered and very light, it would have been quite capable of taking charge if we had tried to secure it aboard. So, making the best of a very bad bargain, I hauled it partly out of water, righted it, and let it go with only a few bucketfuls sloshing around in its bilge. Fortunately, the painter by which it was secured was taken

(*Continued on page 60*)

15 Months' Hard Grind » » »

—Without Complaint!

Aco 26-Footer Powered with Gray "8" and Gray Vee Drive. Makes 30 M. P. H. and comfortably seats 12 passengers.



Gray Vee Drive Advantages

Motor in the stern of boat. Midships no longer sacrificed to motor. More usable room. Cockpit always dry. More speed. More comfort. Load in proper position. The entire party enjoys water motoring together.

100% Perfect Performance

Fifteen months of hard, merciless punishment at the hands of stock boat builders and boat owners have proven the positive perfection of the Gray Vee Drive.

Today there are hundreds in successful service. Four stock boat builders have standardized on models embodying the Gray Vee Drive. And not a single Gray Vee Drive has broken up, proven defective or has failed to operate in service month after month just as it did the day it was delivered. It is quiet, efficient and cool running at all speeds.

You may be sure before stock boat builders risked their reputation by standardizing on models featuring such an advanced engineering principle that their engineers set out with determination to "give it the works and bring out the bugs." The fact that the Gray Vee Drive stood their gruelling tests is alone sufficient evidence of its fitness for all types of service under all conditions.

The Gray Vee Drive is ready for your boat. It has been in volume production for months. You can accept it with absolute confidence that—like every Gray Product—it represents the utmost in value for your dollar.

Write today for booklet describing the Gray Vee Drive.

Gray Marine Motor Co.

680 Canton Ave., Detroit

Canadian Office: 77 Adelaide W., Toronto

GRAY Vee Drive

FIRST TASTE OF AEGEAN WEATHER

(*Continued from page* 58)

from the manilla whale line that we use for anchoring Hotspur and I could be sure that it would not break. With a final curse for carelessness, I hoisted the main, rolled in a deep reef, set the foresail, and got going.

I had been pretty busy during these twenty minutes, and so had not time to watch the waves breaking on the rocky shore of Keos to leeward. But P. L. had not been so occupied and she told me later that to appreciate the full beauty of breakers one must see them from the shoreward side.

With sheets well eased, we laid a course of south-southeast to pass to leeward of Gyaros Island, and I looked astern to observe the performance of our water-logged dinghy. It did not, alas, caress the waves with its accustomed *joi de vivre*, but smote them heavily and resentfully, and every time it smote the spray curled over its stubby bow and dropped inside. So I had that in mind as one of the pleasures to come. For two hours we sailed our course, thankful indeed that the island of Syra offers a good harbor of refuge and that we did not have to run back to our starting point.

As we drew under the lee of Gyaros, which lies nearly midway between Keos and Syra I asked P. L. to read again from the Pilot. She read, "Gyaros is moderately high, barren, possesses no harbor, and had a population of only eighteen in 1896." We tried to estimate how much that meager population would have increased in thirty-four years if they hadn't had the good sense to die or move away. Except for a very few stone walls rambling over the steep slopes of the hills there was no sign of human occupation.

Under the cliffs the sea moderated but we felt for the first time the full force of the white squalls which rob the lee of the Aegean islands of the protection a stranger expects. Invisible until they strike the water, they come hurtling down the hills and churn the sea to foam. Reefed as we were they gave us no annoyance except to hinder my chore of hauling the dinghy alongside and bailing it. Between gusts we righted and almost lost headway. As we sailed along the south face of the islet and neared its eastern end the force of the squalls spent itself. In another five minutes we were totally becalmed.

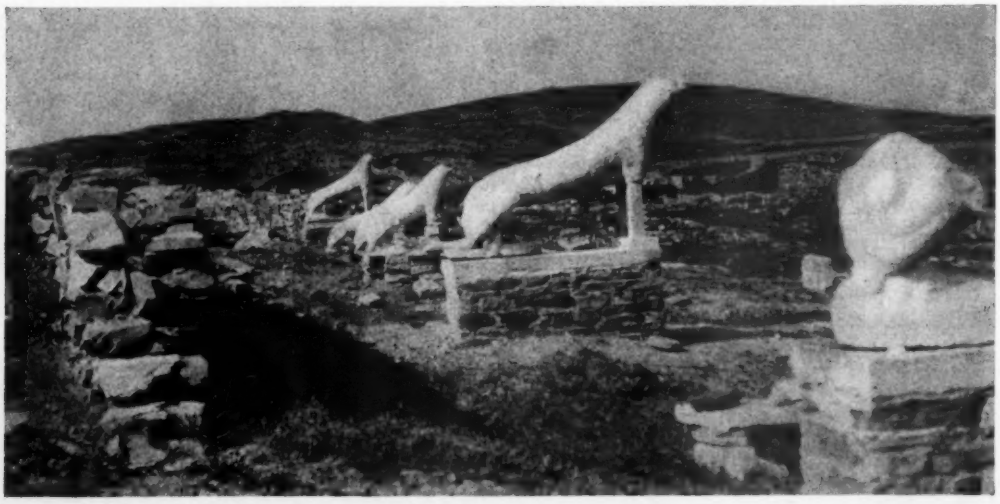
"Well," we said, shedding oilers which had suddenly become unbearably hot, "that was a nasty blow while it lasted; but if this is the worst the Aegean has to offer there's nothing to get excited about." Yet as I unrolled the reef, started the motor, and we continued our course to Syra, now plainly visible seven miles away, we observed grayish white clouds gathering heavy on the lee side of the neighboring island of Tinos. Although the sea between, while turbulent, was almost totally devoid of whitecaps we were weather wise enough to mistrust those low, tenacious clouds.

When, therefore, the wind struck again from the same direction we were quick to stop the motor and roll in a deeper reef than before. This time everything worked smoothly and we were snugged down in three minutes. It seemed a long reach from Gyaros to the north tip of Syra and our suspense was heightened because the wind was gradually working up to gale force and because a strange harbor must be entered after dark. P. L.'s thoughts were running ahead of mine and contemplating the possibility of missing the entrance and spending the night at sea. I was more immediately occupied with the enigma presented by the nearing shore of Syra which is approximately north and south on the chart and looked to me to lie east and west. If, with islands all about us, I had mislaid one or two in the excitement of the early afternoon I might have a merry time finding them in the last hour of daylight. If what I took for Syra was Thermia, the next island to the westward, the possibility of a night at sea was not very remote.

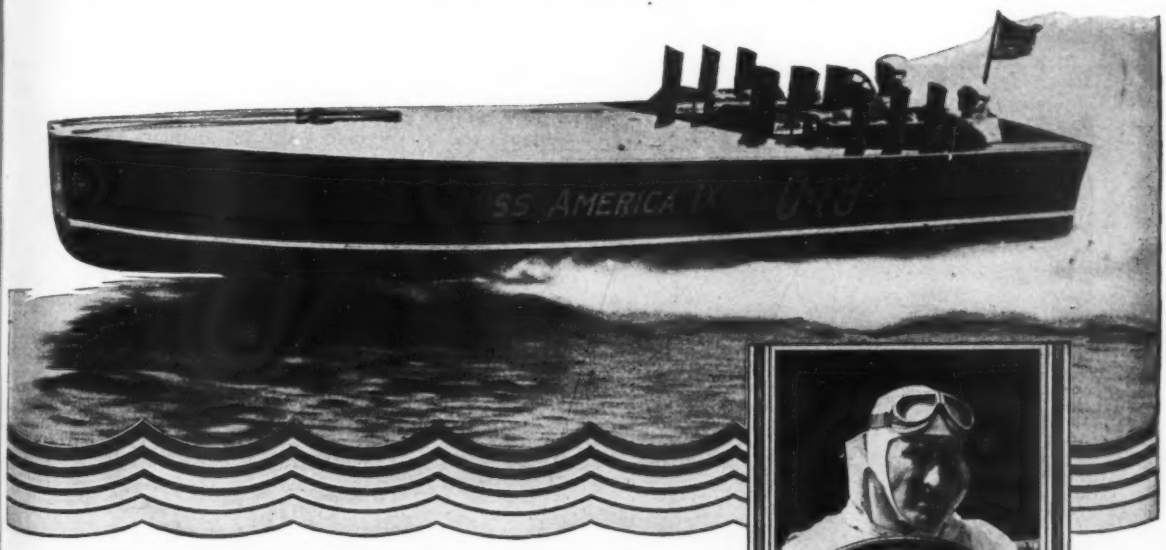
The fact that the north tip of Syra is plainly marked by a lighthouse only added to my confusion, for, scanning the bold shores high and low, I could see nothing to indicate that the hand of man had ever worked there. Nevertheless we kept on and at seven of the evening had a rocky cliff 400 yards under our lee, the breakers dashing high against it. Now I stood ready to start the motor at an instant's notice in case the wind bounced off the water and left us becalmed. In this period of uncertainty I happened to see, abaft our starboard beam, a structure very much the size and shape of a match stick. From it in the early twilight a pale light flashed. So that was our lighthouse, and we knew for a certainty that Syra harbor lay only six miles farther on.

Soon, as the coast fell away, we changed course, eased sheets, and were relieved of the apprehension of a lee shore. But the dinghy was still to be reckoned with, and after skidding sluggishly down innumerable seas it finally filled and overturned. This crisis, as it chanced, was the last of our troubles. We lowered the main, emptied the dinghy, started the motor, and chugged slowly for the harbor entrance.

A green light marks the jetty of Syra harbor and as this came abeam I went forward to (*Continued on page* 114)



The archaic lions at Delos, sculptured of Parian marble, are still savage and awe-inspiring



GAR WOOD

Gar Wood Wins Again; Miss America IX EVERDUR-Fastened

WITH the terrific strain of her two 1050 horsepower engines shaking the trim craft from stem to stern, Gar Wood, with Miss America IX, once more has swept over the Detroit River to victory and the coveted Harmsworth trophy.

Needless to say, the most serious consideration was given every item of construction in Miss America IX. Only materials of unquestioned dependability could be a part of her. Because of the performance of EVERDUR screws in the hulls of standard Gar Wood models, bolts and screws of this Anaconda alloy were used in the hull and planking of Miss America IX.

In this supreme test, the unusually high strength, ductility and toughness of the EVERDUR fastenings provided a wide margin of safety. In addition to these properties, of vital importance particularly in the case of Miss America IX, EVERDUR possesses remarkable resistance to corrosion, a fact which doubles the significance of its use for fastening the planking on all standard Gar Wood models.

THE AMERICAN BRASS COMPANY
General Offices: Waterbury, Connecticut

ANACONDA COPPER
BRASS ANACONDA BRONZE

YARD AND SHOP

(*Continued from page* 54)

Malcolm Pope at the wheel of his new Dodge 16-footer

A yacht yard for the storage and servicing of its patrons' yachts will soon be opened.

SERVICE ON INDOAKO UNINTERRUPTED BY FIRE

Several months ago a disastrous fire laid waste one of the huge saw mills owned and operated by the Insular Lumber Company in the Philippine Islands. The well known product of this company is marketed in the United States under the familiar name of Indoako Wood by its exclusive Eastern sales representatives, the Indiana Quartered Oak Company, Long Island City, N. Y.

At the time of the fire fears were expressed on part of the trade that a shortage of Indoako would result. However the Indiana Quartered Oak Company carries a huge stock—around 4,000,000 feet at all times—just against such emergencies. Also two big cargoes consigned to it, now unloaded, were afloat at the time.

The Indiana Quartered Oak Company now announces that the Insular Lumber Company is temporarily installing a large circular saw mill at its plant at Fabrica, Philippine Islands. This saw mill is now in operation and will supply the American trade with Indoako while plans are drawn and operations go forward to rebuild the burned down plant.

Meanwhile there is still a reserve supply of 14,000,000 feet of Indoako ready for shipment in the Philippines. The Indiana Quartered Oak Company will therefore be able to continue its prompt service on all sizes of Indoako without interruption. Users of this fine and versatile hardwood need have no fear of any shortage.

SHAFT FACTORS WHICH INCREASE SPEED

How to increase materially the speed of a cruising house-boat without increasing the size of shafts and struts was solved recently by E. J. Noble, of Port Chester, president of Life Savers, Inc., and owner of the luxurious yacht, Monatoana, large craft eighty-three feet long by fourteen feet beam.

When the vessel was built by Ditchburn Boats, Limited, of Gravenhurst, Ont., she was equipped with bronze shafts. Desiring to increase the speed of the vessel and combine the fleetness of a commuter with house boat comfort, Mr. Noble had the original engines replaced with two 425 h.p. Lyon-Tuttle Liberty engines.

This change made it possible materially to increase the size of the propellers and to turn them over fast enough to bring the vessel's speed up to 25 miles an hour.

The larger wheels, however, could not be carried on the original shafts. Because of its great strength and rigidity, Monel Metal shafts of the same diameter as the original proved sufficiently strong to carry the new wheels. Each shaft is 1¾ inches in diameter by 31 feet in length.

OUTBOARD DARE-DEVIL GOES INBOARD

Malcolmn Pope, of Winter Haven, Florida, one of the country's most spectacular performers of stunts with outboard motor boats, has gone inboard through the purchase of a Dodge 16-foot runabout with which he is planning a number of sensational motor boating events. The photograph shows Mr. Pope driving a party of friends in his new Dodge.

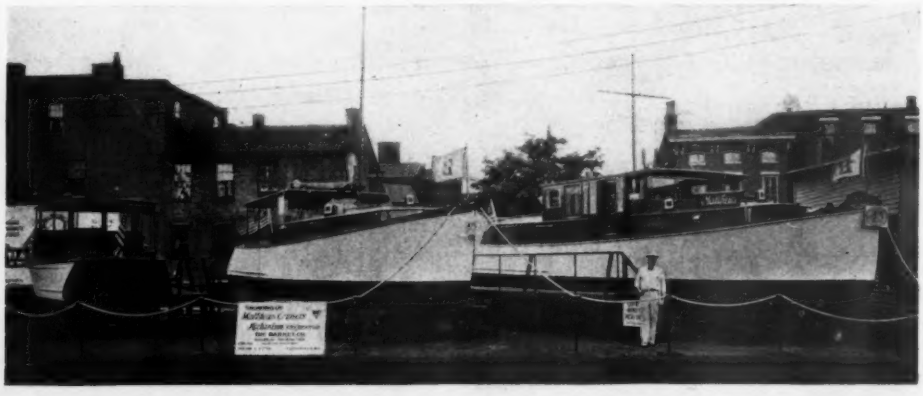
DISPLAYING THE CRUISER

The photograph below shows the display of the Matthews distributor in Louisville, Kentucky, The Barret Company, who have been extremely successful in selling Matthews 38- and 46-foot cruisers to yachtsmen on the Ohio River at this point. Thomas L. Barret, president of the company, is standing in the foreground.

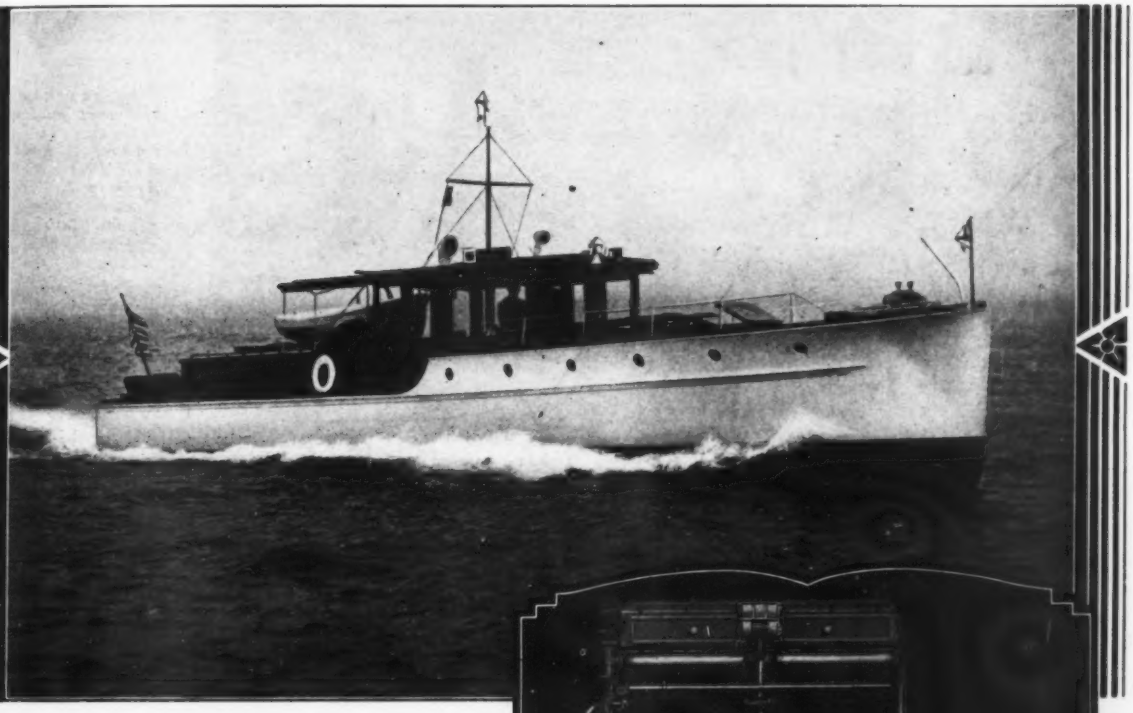
The novelty of the exhibit is due to the fact that it has the advantage of being very readily seen and in this way advertises the product direct to the individual thus overcoming a problem that usually confronts the average boat distributor or dealer where he cannot use an open air showroom but is forced to hide his wares behind plate glass.

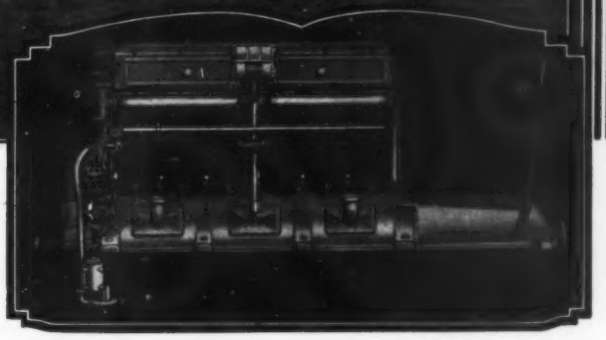
This cruiser exhibition is used from the time navigation opens until the cold weather sets in. Many prospective buyers are obtained for next year's deliveries in the fall.

(*Continued on page* 120)



A novel exhibit of two Matthews cruisers and a Richardson Cruiseabout by The Barret Company, Louisville, Ky.





POWERFUL ~FAST~ DEPENDABLE

THE NEW K-6 BY MURRAY & TREGURTHA

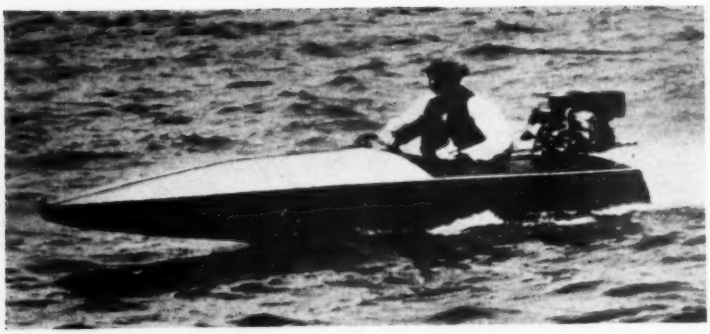
6¼" Bore ~~ 7¾" Stroke ~~325 H.P.

What greater proof of the rugged power and available speed of Murray & Tregurtha K-6 engines could be desired than the case of the "Cintra." With twin Model K-6 engines installed, with complete cruising equipment, with tanks filled with 1,200 gallons of gasoline and 300 gallons of water, this cruiser records an average speed faster than 28 miles an hour.

This compact 325 H.P. engine delivers its power quietly and smoothly, making travel at even its higher cruising speed a real comfort. Up-to-date in design, constructed of carefully selected materials, equipped with modern accessories, the K-6 is built and tested by men experienced for a generation in fine marine construction.

Consult Your Naval Architect
Send for Descriptive Bulletin

MURRAY & TREGURTHA INC.
NORTH QUINCY, MASSACHUSETTS



The fastest time ever made by an outboard. Ray Pregenzer driving his Century Hurricane to a record of 50.934 m.p.h.

THE HIGHEST SPEED YET

Ray Pregenzer Drives a Century Hurricane With an Outboard Motors Corporation Four-60 Over the Fifty-Mile Rate

A NEW world's outboard speed record of 50.934 miles an hour was made by Ray Pregenzer, Antioch, Illinois, on September 20-22, at Fox Lake, Illinois, when Pregenzer drove his Century Hurricane over a course twice surveyed by engineers during six mile time trial runs. The run was supervised by officials of the National Outboard Association and the course remeasured after this remarkable time had been clocked.

Officials of Outboard Motors Corporation, Milwaukee, which manufactures the Four-Sixty racing motor as well as all other Elto, Evinrude and Lockwood motors, pointed out a number of facts which add additional significance to this new record. During the July regatta Pregenzer had entered the 100-mile marathon. At about one o'clock while making some spectacular pictures with his outfit for Fox and International News Reels, Pregenzer dumped in the treacherous wake of the camera boat which he was following. He was hauled to shore by a patrol boat and had barely forty minutes in which to put his motor in condition for the marathon. Twenty-five minutes after the motor was taken from the water it had been drained and was again in operation. Pregenzer then took it out to tune it up and was ready in plenty of time for the start.

Ray Pregenzer, who weighs over 200 pounds, in the 215-pound boat which set the new record

He led the entire field of 66 entrants over the first 25 miles, but at that point was forced to abandon his boat, the seams of which opened up due to the terrific pounding in rough water, and also because Pregenzer had used this same hull in all of the many races in which he has been competing this year.

Forced out of the marathon, he set about to caulk the seams with cord and graphite in the best possible manner under the circumstances. The following day he used this boat in the time trials which brought him a new record which he has now bettered.

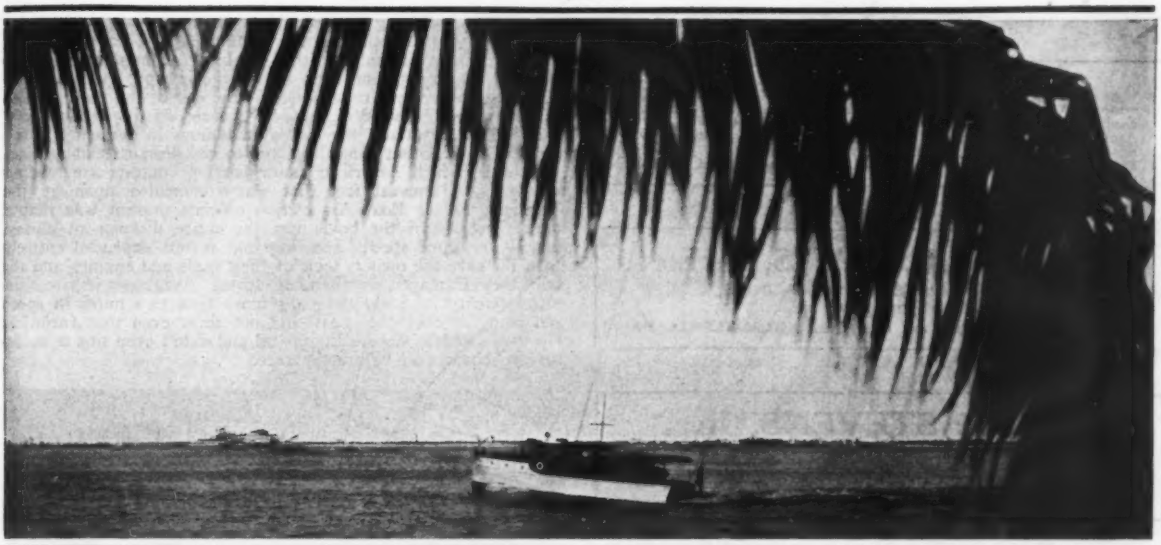
His boat was carefully weighed on two accurate scales and in both cases registered 215 pounds, 25 pounds over the minimum required for Class D, E and F motors and, of course, far heavier than boats used in establishing world's records prior to the inauguration of the boat weight rule. Pregenzer himself is a tall, mucular man, weighing over 200 pounds. From these facts it is evident that the record was not made under the most favorable circumstances, but under a comparatively large weight penalty and under water conditions which were not conducive of the highest speeds.

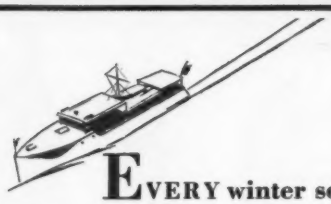
Officials of Outboard Motors Corporation felt that this record is definite evidence of the tremendous speed and power of this Class F motor, and were confident that a record of 50 miles an hour or over would be established within a few weeks, which has now been done—the first recorded speed of better than fifty miles per hour.

The Four-Sixty, according to dynamometer test, is the most powerful outboard motor built, its dynamometer registration being over 45 h. p. As has been the case so often in the past, this motor is the product of Ole Evinrude's wizardry.

There may be some question as to just how much faster these outboards can be made to drive a boat, but with the new world's record made under the difficult conditions already described, speeds of fifty-five miles per hour would not seem unreasonable before a great while under more favorable circumstances.

Dawn Twin Screw Cruisers are Sea-going boats





EVERY winter sees more and more Dawn Twin Screw Cruisers in Southern Waters. These boats are not shipped there, but are northern yachts sailed south by their owners. Dawn boats are blue water boats. Their large cruising radius, sea-worthiness, power, speed and spacious accommodations for owner, guests and crew make them ideal for extended cruising and offer admirable living quarters while away. If you have not been aboard a Dawn Twin Screw Cruiser, visit our yard or let us send you literature. DAWN BOAT CORPORATION, Clason Point, New York. Telephone, Westchester 7000. Established 1906.

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Dawn 45-footer . . . Powered by twin-Lathrops, each 70 HP. . . . Speed 14 M.P.H. . . . $17,900 afloat at Clason Point
Dawn 48-footer Express . . Powered by twin Sterling Petrels, each 150 HP. . . (5¼" x 6"). . . Speed 20 M.P.H. . . $25,800 afloat at Clason Point

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GAR WOOD WINS AGAIN FOR AMERICA

(*Continued from page* 34)

third prize of eight hundred dollars.

The first five boats finished the hard, wet 50-mile thrash within five minutes. The first twelve finished within ten minutes. The first twenty finished within eighteen minutes and the four still running were flagged off the course to make way for another race.

The race was won by Frank Wigglesworth of Boston, who maintained a speed over the whole course of 27.721 miles an hour. The average of all of the twenty boats that were timed was over 25 miles an hour. The next day, when the river was too rough for Gar Wood's Miss Americas and Miss Carstairs' Harmsworth challengers to attempt record runs, Wigglesworth made six runs with his little Sweepstakes winner and established a record by averaging 30.921 miles an hour.

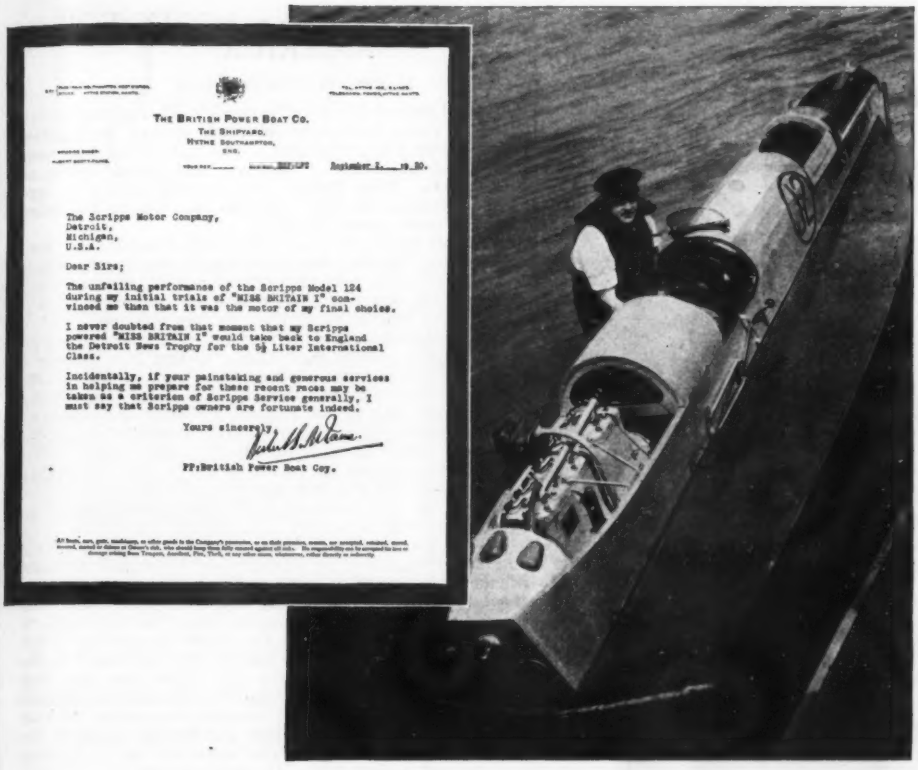
This was the first time motor boating experts have ever had the opportunity of judging the reliability, consistent running, speed and general performance of a large group of standardized one-design motor boat runabouts. At the end of the Sweepstakes race, in which Frank Wigglesworth secured first prize of $1,500 and $900 in lap prizes, they were unanimous in declaring it the greatest impetus that could be given to one-design runabout racing toward which American motor boating contests are tending rapidly. An unusual fact that was commented upon by the American Power Boat Association officials present was that a large majority of the boats ran the entire distance at almost exactly the same speeds, showing that results depended entirely upon the care the owners took of their hulls and engines and the skill they displayed in rounding turns. Wigglesworth, in the entire twenty laps, did not vary more than two miles in speed and many of the other boats did not show even that variation. He used Duplex Marine Engine oil and didn't even find it necessary to change oil before the race.

Hubert Scott-Paine receives the Detroit News International Trophy from Wm. E. Scripps, donor

Another race of great importance was that for the Detroit News Trophy open to boats of the new 5½ liter International class. This race consisted of three 15-mile heats and while only three boats entered, yet their performances were excellent and the success of this International class seems assured. These boats proved seaworthy and as the rules place no restriction on the hulls except that they shall be at least 20 feet in length, it is possible to get a good fast racing craft at a reasonable cost. The power plants are restricted to stock models of about 135 horsepower each, built by Gray, Chrysler, Scripps and Lycoming. This restriction of power plants to motors of a specified make assures real racing competition and eliminates the possibility of special racing motors at a cost of from $6,000 to $10,000 each.

The entries for the 5½ liter International class included Miss Britain I, (described elsewhere in this issue) entered by Hubert

(*Continued on page* 68)



THE BRITISH POWER BOAT CO.
THE SHIPYARD,
HYTHE SOUTHAMPTON,
ENG.

September 2, 1930.

The Scripps Motor Company,
Detroit,
Michigan,
U.S.A.

Dear Sirs;

The unfailing performance of the Scripps Model 124 during my initial trials of "MISS BRITAIN I" convinced me then that it was the motor of my final choice.

I never doubted from that moment that my Scripps powered "MISS BRITAIN I" would take back to England the Detroit News Trophy for the 5½ Liter International Class.

Incidentally, if your painstaking and generous services in helping me prepare for these recent races may be taken as a criterion of Scripps Service generally, I must say that Scripps owners are fortunate indeed.

Yours sincerely,

FF:British Power Boat Coy.

"MISS BRITAIN I"

Built by the British Power Boat Company, Hythe, Hants, England, and designed and driven by Hubert Scott-Paine, won the first international contest for the Detroit News 5½ liter Trophy at Detroit, September 1, 1930. Her power plant is a stock Model 124 SCRIPPS, 331.2 cu. inch displacement, 135 H. P. @ 3000 R. P. M.

SCRIPPS Model 124 is one of a line of fifteen models 15 to 200 H. P. for high speed and medium duty.

The Power Plant of "Miss Britain I"

THE unfailing performance of SCRIPPS Model 124 during the initial trials of "Miss Britain I" was the determining factor in the choice of the motor that carried Hubert Scott-Paine to victory in the race for the Detroit News Trophy for the 5½ Liter International class.

Typifying all SCRIPPS motors, Model 124 is refreshing in its simple sturdiness and complete compactness. Its wide range of speeds, its pick-up, its ready response to the throttle are unapproached by any other marine motor.

Ease of starting, flexibility and power are provided by its perfected down-draft carburetion.

Its patented counterbalanced crankshaft suffers less flexure and exerts less strain and wear upon its bearings at 3000 R. P. M. than does an ordinary crankshaft at half the speed. Lynite pistons and rods lessen internal strain and eliminate destructive vibration "periods".

In no sense a racing machine, the Model 124 is designed to endure that endless, nerve-racking strain of continued full-throttle, top-speed operation under which only the fittest may survive.

The wide acceptance of SCRIPPS motors by so many prominent builders of standardized craft who offer them as standard or optional equipment is significant of SCRIPPS unfailing dependability.

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MINETT-SHIELDS
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STEPHENS
STAPLES-JOHNSON●
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WHEELER "PLAYMATES"●
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And so, fox-hunting enters the lists—at Montauk Beach—to magnify the pageant of pleasure at this smart summer colony. Two magnificent 18-hole golf courses—replicas of Britain's best. Finest big-game fishing in seven seas...giant tuna and record broadbill swordfish. Thirty miles of winding bridle paths. A perfect yacht basin and club. The world's largest glass-enclosed tennis auditorium. 1,600 feet of broad boardwalk and unexcelled surf bathing...125 miles nearer the Gulf Stream. These, mind you, are but the high spots!

Food? Award the epicurean palm to the palatial Montauk Manor! Montauk the Beautiful is the ideal site for a summer home...or a few week's retreat from business. Reached by fast train from New York, by motor or by Long Island Sound ferries.

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Montauk beach

ON LONG ISLAND'S SLENDER TIP

GAR WOOD WINS AGAIN FOR AMERICA

(*Continued from page 66*)

Scott-Paine of London; Phantom, entered by H. Lutcher Brown of Houston, Texas; and Baby Minchas entered by Charles Moulthrop of Bay City, Michigan. The last named boat was built from plans published in February and March issues of MoToR BoatinG. Miss Britain was powered with a Scripps motor, while Phantom and Baby Minchas each had an 8-cylinder Gray motor as their power plants.

The three heats for the 5½ liter class were scheduled for Sunday, August 31st. On that day the water of the Detroit River was very rough. In the first heat, Phantom took the lead from the very beginning and had little trouble in opening up a big gap between Miss Britain I and Bay Minchas. However, when Phantom had completed about half of the race, she overturned from the swell of a passing patrol boat. When Miss Britain I with her owner, Scott-Paine at the helm, came abeam of the overturned Phantom with her crew in the water, she slowed down offering assistance to Mr. Brown. However, the owner of Phantom, not desiring to jeopardize Miss Britain's chances of winning the race after his boat had dropped out, waved to Mr. Scott-Paine to continue on his course, which he did for another half lap or so, when he also was obliged to discontinue the race. Mr. Moulthrop at the wheel of Baby Minchas continued on winning the first heat.

With two of the three race boats out of commission at the end of the first heat, it left the Detroit Race Committee in doubt as to whether it would be wise to continue the other two heats or postpone them until the following day. Mr. Scott-Paine was consulted and reported to the Committee that due to his efforts to go to the assistance of Phantom, that he had injured his clutch control and jammed the fuel line, leading from the tanks to the motor. As the racing rules, in the case where one competing boat goes to the assistance of another boat in distress, provide that in such a case the local Race Committee may order the heat re-run between the winner of the heat and the boat going to the assistance of another, Mr. Scott-Paine applied to the Committee for the re-run of the first heat. This was granted by the Committee and the three heats were scheduled for the following day.

In the first heat on Monday, Miss Britain I was the only boat at the start and completed the course alone. In the second and third heats, Phantom and Baby Minchas also competed but inasmuch as these boats had not taken part in the first heat, they had no chance of winning the trophy.

Phantom was decidedly faster than Miss Britain although her owner made a good race of it in the second and third heats by keeping abeam of Miss Britain I most of the time. Phantom took first place in the second and third heats with Miss Britain finishing in second place and Baby Minchas not far astern.

Other events which took place at Detroit included races for practically every type and size of boat including all classes and divisions of outboards, a 75-horse power stock runabout race, three heats of the 151-inch limited class, a displacement runabout free-for-all, a Richardson Cruiser Chance Invitation Race, a Chance Race for Corsair cruisers, one for ACF Cruisers, another for Liggett Cruisers and one for Matthews Cruisers.

Two Gar Wood standard stock boats staged a thrilling duel for first place in the Dick Locke Trophy competition over a ten-lap 25-mile course. The winning boat, a 28-footer, model 55, is a standard model recently added to the Gar Wood standard stock boat line. It was driven by Eugene Kettering, 23-year-old neighbor of Gar Wood and son of Charles F. Kettering, president of the General Motors Research Corporation. He averaged 44.137 miles per hour. Running second to Kettering was Bob Leibe, superintendent of Gar Wood, Inc., in a model 50. Leibe averaged 43.839 miles per hour. Third to finish was C. M. Fox of Toledo in a Chriscraft.

Special mention should be made of the performance of Lenore II owned by Vincent Link of Detroit in the Matthews cruiser race. Lenore II is a new model Matthews 46 and is powered with two 100-horse power model 160 Scripps motors. Excepting only Dick Locke's Liberty powered Matthews 38, which took first place, Lenore II outdistanced the field and lapped several of the contestants.

The annual competition for the Kermath Cruiser Trophy presented by the Kermath Manufacturing Company was held in the form of four heats. These boats all completed a total distance of 75 statute miles. Sixteen courses were laid out in Lake St. Clair. The field covered four courses each day. The owners were furnished with instructions a few minutes before the start of each heat giving the compass course which they were to follow but no information as to the distance of the heat, etc. Some sixteen cruisers completed the four heats, the final result being decided by the point system. First place was wone by Mar-Jim III,

(*Continued on page 70*)

Advertising index will be found on 3rd last page

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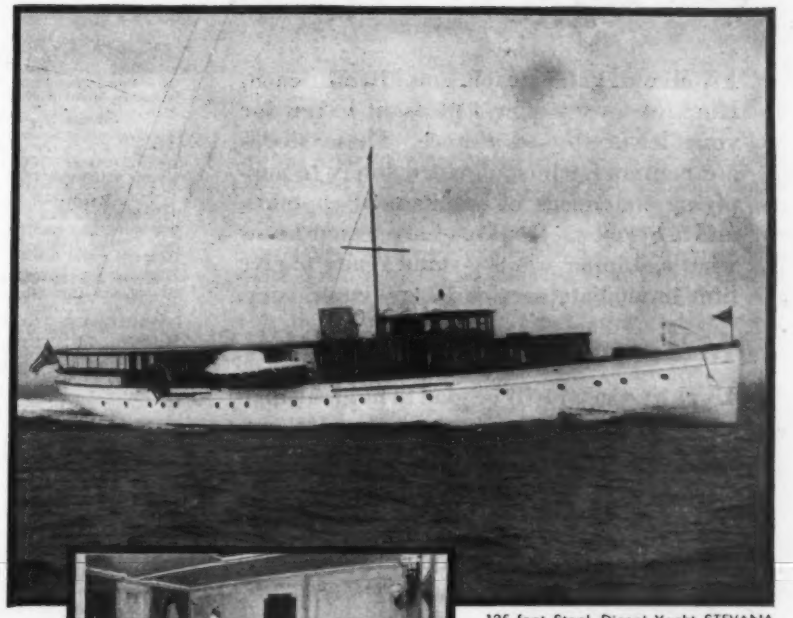
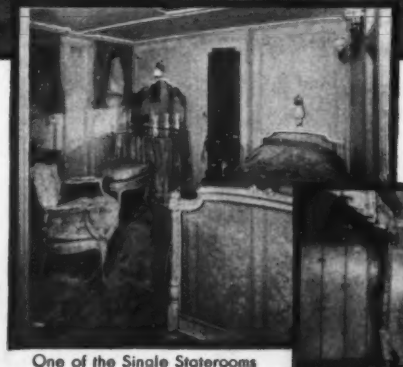


135-foot Steel Diesel Yacht STEVANA designed and built (1930) by Consolidated Shipbuilding Corporation



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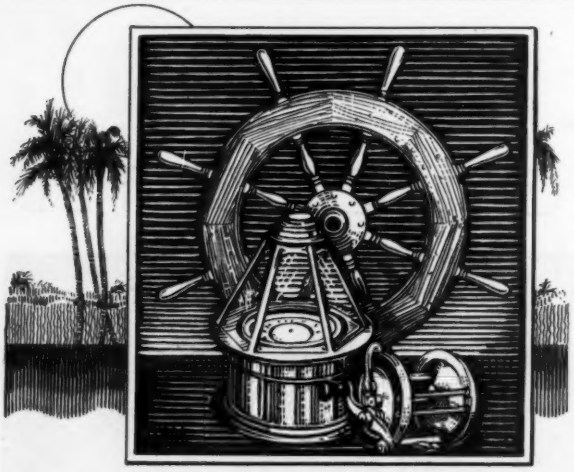

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MIAMI BEACH

HOPKINS CARTER *Marine Supplies*

GAR WOOD WINS AGAIN FOR AMERICA

(*Continued from page* 68)

owned by E. H. Teetzel of the Detroit Yacht Club. Second place was taken by Storm King, owned by W. H. Rowe and third place by Chanwi, owned by W. O. Ogden.

A complete summary of the winners of the various classes and divisions at the Detroit Regatta follows:

Event No. 2—25 Mile Invitation Race open only to Lyman displacement outboard runabouts

1st—Boat driven by L. Verog
2nd—Boat driven by F. Wilton
3rd—Boat driven by Fred Wiehn
Winner's time: 51:33.55. Speed: 29.093 m.p.h.

Event No. 3—Hour Race for Stock Runabouts Class C, not over 75 horsepower

1st—Dodge No. 16—J. R. Mason
2nd—Beaver—H. P. Vaughn
3rd—Beaver—C. M. Root
Winner's time: 1.02:08.26. Speed: 26.554 m.p.h.

Events No. 4, 8 and 21—2½ litre (151 cubic inch) limited, 15 miles

1st—Meadowmere II—Chris Ripp
2nd—It—Lutcher Brown
3rd—Bay Head II—Chris Ripp
Winner's best time: 6:02.53. Best speed: 49.651.

Event No. 5—Dinghy Race Inboard or Outboard for Yacht Owners

1st—Boat owned by H. Belonius
2nd—No. 81
3rd—Boat owned by W. E. Adams
Winner's time: 3:49.32.

Event No. 7—Displacement Runabout Free For All, 25 Miles (unlimited)

1st—Gar Wood, Eugene Kettering
2nd—Gar Wood, Kieth Leiby
3rd—Cega, C. M. Fox
Winner's time: 33:59.12. Speed: 44.137.

Event No. 10—Class B. Division I Outboards, 5 Miles

1st—Full Quart—J. Mapole
2nd—Miss Riverview—A. Grantner
3rd—Momamma—Scot McQueen
Winner's time: 8:49.42. Speed: 33.999.

Event No. 10—Class B, Division II Outboards, 5 Miles

1st—Buckaroo—J. C. Nunneley
2nd—Kaydet—Reece Haohitt
3rd—Red Streak—L. Masters
Winner's time: 8:46.30. Speed: 34.201.

Event No. 11—Class B, Division III Outboards, 5 Miles

1st—Michigan Kid I—Jack Wood
2nd—Miss Lansing—G. Middlebrook
3rd—Apache Kid—C. Koeffler
Winner's time: 8.05.25. Speed: 37.094 m.p.h.

Event No. 12—Class G and under, Division IV Outboards, 5 Miles

1st—M 502—Hub Meyers
2nd—V 251—R. Neal
3rd—Le Canard—J. Holden
Winner's time: 7:17.32. Speed: 41.159 m.p.h.

Events No. 13 and 34—British International Harmsworth Trophy Unlimited Class—60 nautical miles.

1st—Miss America IX—Gar Wood
2nd—Miss America VIII—George Wood
3rd—Miss America V, Phil Wood
Winner's best time: 26:46.95. Best speed: 77.390 m.p.h. (statute)

Events No. 15, 22 and 27—Detroit News International Trophy, 5½ litre class 20 foot water line length, 45 miles

1st—Miss Britain I—H. Scott-Paine
2nd—Phantom—L. Brown
3rd—Baby Minchaa—C. S. Moulthrop
Winner's best time: 20:58.96. Best Speed: 42.892 m.p.h.

Event No. 16—Richardson Cruiser Chance Invitation Race, 5 miles

1st—Richardson—H. L. French
2nd—Almayne—A. C. Fournier
3rd—Eldroma—E. R. Connor
Winner's time. 18:15.73. Speed: 16.427 m.p.h.

Event No. 17—Corsair Cruiser Chance Invitation Race, 5 miles

1st—Sazarac—H. Smith
2nd—Loplate—L. B. Turner
3rd—Bije-To—W. W. Tallman
Winner's time: 21.01.38. Speed: 14.270 m.p.h.

Event No. 18—A. C. F. Cruiser Chance Invitation Race, 5 miles

1st—Incognito—F. M. Sibley
2nd—Easygoing II, J. Q. Farrell
3rd—Volante—H. E. Bodman
Winner's time: 17.08.74. Speed: 17.497.

Event No. 19—Liggett Cruiser Chance Invitation Race, 5 miles

1st—Sapphire—Dr. O. T. Toepel
2nd—Hedgie—C. L. Simmons
3rd—Diris F. III—H. J. Fortaine.
Winner's time: 17:39.49. Speed: 16.989 m.p.h.

Event No. 20—Matthews Cruiser Chance Invitation Race, 5 miles

1st—Nancy L.—D. Locke
2nd—Linore III—V. M. Link
3rd—Inez R II, M. A. Killian
Winner's time: 13:33.70. Speed: 22.121 m.p.h.

Event No. 23—Class D, Division I, Outboards, 5 miles

1st—V 251—J. Maypole
2nd—V 264—J. Gunnar
3rd—M 82—B. H. Ackles
Winner's time: 7:22.83. Speed: 40.647 m.p.h.

Event No. 23—Class D, Divison II, Outboards, 5 miles

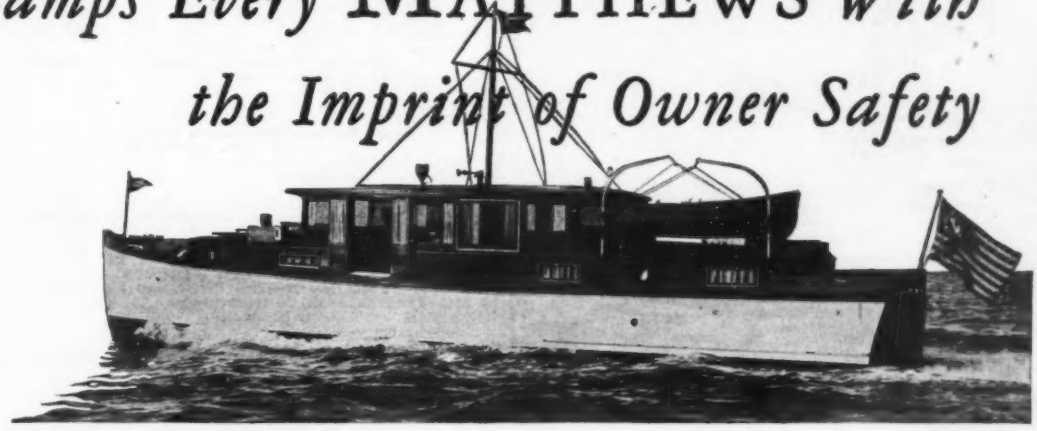
1st—M 1, S. Nunneley
2nd—M 2, J. C. Nunneley
3rd—N 13, Reece Natchitt
Winner's time: 7:36.97. Speed: 39.389 m.p.h.

(*Continued on page* 74)

Advertising index will be found on 3rd last page

Husky Performance

Stamps Every MATTHEWS *With the Imprint of Owner Safety*



Make no mistake—Matthews Cruisers are designed and built to withstand the day-in, day-out grind of long-distance cruising. They are staunch, rugged, spacious and beautifully appointed. You'll find their spirited grace and buoyant riding action a revelation in perfect boat control, dryness, comfort and swift responsiveness to helm or throttle. Seasoned by 39 years of experience, the Matthews organization are competent to provide the last word in husky cruiser performance, skillfully combined with rare good looks and the most intriguing cabin luxuries. Matthews Cruisers are built in 38- and 46-foot sizes with speeds ranging from 15 to 30 miles per hour. You have the liberal choice of ten trim models. One to serve the deep-sea fisherman; one the speed needs of the commuter; another the genial host who demands plenty of space for his friends; one for the family man who desires security and restful ease afloat; or the yachtsman who requires a fine trim ship to answer every cruising emergency—fit his own ideals of cruising competence. Incorporated in each Matthews design is a degree of comfort to match your every whim—provide all the deftness of the social graces—the glorious freedom of unfettered water travel. Matthews will gladly supply you with illustrated details, or consult your nearest dealer today. Deliveries available for southern cruising.

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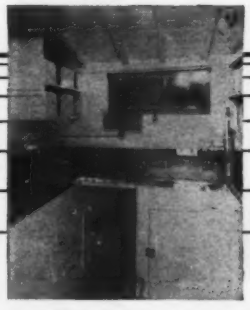
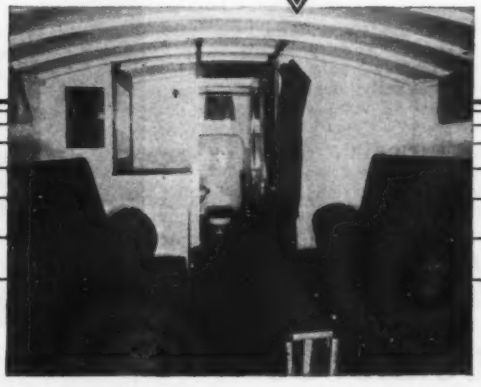
Designers and Builders of Boats of Distinction · · · Since 1890

304 BAY SIDE, PORT CLINTON, OHIO



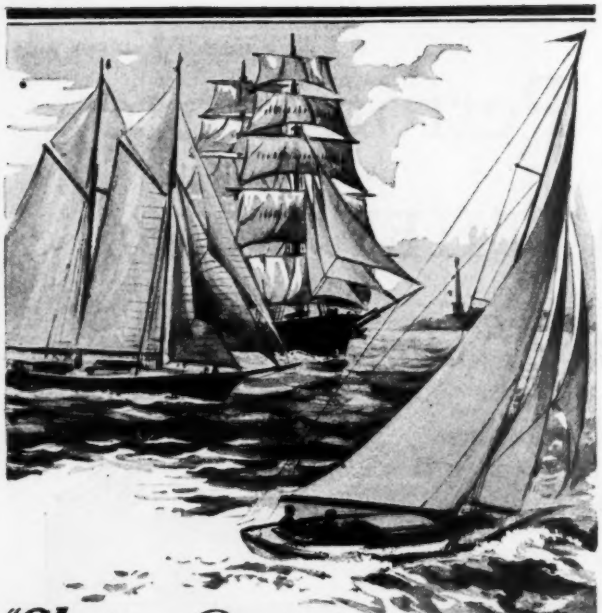
Every Matthews is equipped with a galley-kitchen that is complete in all essentials for distance cruising.



Beautifully appointed cabin interiors that are spacious and comfortable for daytime use yet can be instantly converted into luxurious sleeping quarters for four, six or eight.

The roominess of a Matthews bridge deck, open or enclosed model, is homelike and gracious.

SALES AND SERVICE—The Barret Co., 112 Second St., Louisville; Belle Isle Boat & Engine Co., 8777 E. Jefferson Ave., Detroit; Boardman & Flower, 1740 Van Ness Ave., San Francisco; Bruns, Kimball & Co., Cor. 5th Ave. and 15th St., New York City; Floodgate Motor Boat Sales Agency, 14th and Water Streets, Washington, D. C.; Wm. V. Masson, 1619 Baltimore Trust Bldg., Baltimore; Mississippi Valley Yacht Sales, Times Bldg., Alton, Ill.; Walter H. Moreton Corporation, 1043 Commonwealth Avenue, Boston; Sampson Electric Co., 3201 South Michigan Avenue, Chicago; J. A. Scarlett, 436 East 2nd Street, Cincinnati; R. Sealy, Commerce Building, Galveston; Robert V. Staats, 675 South Park View, Los Angeles.



"She's a Proud Lassie...Now!"

said the Old Schooner, with a wise shake of her hull.

"BUT what will she be when the paint shaves off and the salt gets into her fine new fittings?"

"She'll be as proud as the day she was born . . . those are LAUGHLIN fittings, Mrs. Schooner, they won't rust or corrode . . . they thrive on a salty diet! Look at the LAUGHLIN turnbuckles on my shrouds—they've seen hard duty for many winters and they're as good as new," the old Whaler gave answer.

And so it goes. LAUGHLIN marine hardware and fittings stand up against all odds. They're hot galvanized to withstand salt and corrosion, and skilfully designed with the experience of sixty years behind them.

See that the LAUGHLIN trade mark is on every piece of marine hardware you buy . . . it's your protection—your guarantee.

THE THOMAS LAUGHLIN CO.

144 FORE STREET PORTLAND, ME.

COUPON

THE THOMAS LAUGHLIN CO., 144 Fore Street, Portland, Me.
Please send me, FREE, my copy of the new Laughlin Catalog.

Name .....

Address .....

GAR WOOD WINS AGAIN FOR AMERICA

(*Continued from page* 70)

Event No. 24—Class D. Division III, Outboards, 5 miles
1st —W-511, C. Koeffler
2nd—N-494—F. Brobeil
3rd—M-24, Vern Martin
Winner's time: 7:40.02. Speed: 39.128 m.p.h.

Event No. 25—Class G, Division I, Outboards, 5 miles
1st Dam Near—Gunnar Jacobson
Winner's time: 9:04.93. Speed: 33.031 m.p.h.

Event No. 25—Class G, Division II, Outboards, 5 miles
1st—Miss Northwestern—W. Woodworth
2nd—Kaydet VI—R. Hatchitt
3rd—Deke, S. Nunneley
Winner's time: 8:30.42. Speed: 35.265 m.p.h.

Event No. 26—Class G, Division III Outboards, 5 miles
1st —Oh-My—R. Pregenzer
2nd—Hurricane—R. Neal
3rd—Red Wing III—R. Morin
Winner's time: 7:40.95. Speed: 39.049 m.p.h.

Event No. 29—Dodge Sixteen Sweepstakes (Invitation Race) 50 miles, $5,000.00 in purses
1st —Miss Aldine—F. Wigglesworth
2nd—Aft—J. B. Maypole
3rd—Buffalo Pup—M. G. Elliott
Winner's time: 1:48:13.21. Speed: 27.721 m.p.h.

Event No. 30—Caille Invitation Race, Outboards, 5 miles
1st —Kaydet IV—R. Hatchitt
2nd—The Medico III, D. B. Downing
3rd—Winne—F. P. Icey
Winner's time: 11:02.21. Speed: 27.181 m.p.h.

Event No. 31—Class C, Division I Outboards, 5 miles
1st —Dam Near—M. O. Jacobson
2nd—Oh Yeah II—B. H. Ackles
3rd—K. Betty—E. Risk
Winner's time: 7:42.96. Speed: 38.880.

Event No. 31—Class C. Division II Outboards, 5 miles
1st —Flash III—Jack Smith
2nd—My Weakness—K. Kramer
3rd—Buckaroo—J. C. Nunneley
Winner's time: 7:32.56. Speed: 39.773 m.p.h.

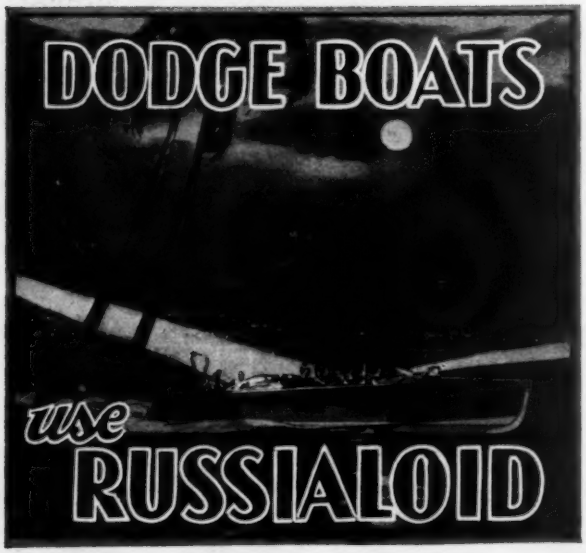
Event No. 32—Class C, Division III Outboards, 5 miles
1st —Apache Kid—C. Koeffler
2nd—Miss Lansing—G. Middlebrook
3rd—Miss Shirt III—E. Patterson
Winner's time: 7:17.62. Speed: 41.131 m.p..h

Event No. 33—Class C, Division IV Outboards, 5 miles
1st —W-511—C. Koeffler
2nd—M-525—G. Middlebrook
3rd—Hell's Fire—B. Smith
Winner's time: 7:23.51. Speed: 40.585 m.p.h.

John B. Farr, President of the Kermath Manufacturing Company, who has been away for several months in the interest of his health but who has now returned to again assume direction of the Kermath Company. Mr. Farr was welcomed back to the industry by his many friends at the Detroit Regatta. All of them were pleased that he had regained his health and to learn that he had again assumed the active management of his company

Advertising index will be found on 3rd last page

GRUELLING -
CONCLUSIVE -
Dee Wite
Log
Sensational
5000 mile endurance run
will open new era in the
annals of power boating
Dee Wite



BECAUSE it makes the ideal covering for cushions and pillows, cockpit linings and trim, Dodge Boats are upholstered with RUSSIALOID. It wears well, maintaining its original crisp appearance for a long time. Oil, water, gasoline and alcohol do not injure it. Its smooth surface is easy to clean. Best of all, it is available in so many colors that any decorative scheme can be matched.

October—the month to plan ahead

October is upon us with a lull in active boating. Plan now for next season. Consult your boat yard and arrange for overhauling. Plan to paint, to varnish, to freshen up. Get new flags and ensigns. Treat your cushions to a new suit of Russialoid.

THE PANTASOTE CO., Inc.
250 Park Avenue
NEW YORK

FAMOUS AVIATRIX TRIES RUNABOUTING

(*Continued from page 35*)

Johnnie got the hang of that speedboat in quicker time than anything else she has accomplished, and we have evidence that she has been no laggard. She took the craft up and down the lake with the steadiness of a nursemaid pushing a pram in the park before the approving eyes of her pet policeman. It was good, but not good enough for Miss Amy.

After all it tended towards monotony cruising gently along the more or less placid waters, and even I, having recovered a chunk of confidence, and though getting an opportunity for a character study of a charming personality, sighed for more action. We got the action all right. Another brief demonstration from Mr. Shillan in almost looping the loop as we banked at the turns, and Johnnie got going to some purpose. She banked; she nearly looped, and from the banks the lads and lassies, disporting a la Lido, were thrilled so much they became more daring. One wonders what would have happened had they known the identity of the pilot.

Finding stunting possible Johnnie let herself go with abandon, yet, even to the inexperienced eye of her one timid passenger, she had perfect control over that powerful engine which provided the pace. We went round and round in circles after the fashion of that rara avis, the taxi driver, who turns you into the station on one wheel in time to just miss your last train. We did everything but a nose dive to Davy Jones' locker, which was as well for lifebelts had not been issued, and my five and a half side strokes would not have been of much avail.

Thus ended the entertainment, and we said good-bye to Amy. But before we had been able to tell one another what a wonderful girl she was she had returned to Jason, the historic plane that carried her to Australia. A defiant challenge being shouted to Mr. Shillan, we took to the boat again, and then commenced another thrilling period, racing between plane and boat.

It was odds on Jason all the time, of course. But Johnnie made it interesting. She flew low enough to be almost alongside the speedboat, but the latter's advantage at the turns caused Jason to do some fast work down the straights, and Amy had to step on the gas. It was a wonderful experience.

Miss Johnson likes speedboating, and she intends to pay frequent visits to the Welsh Harp. She is indeed a remarkable and exceptional girl, unspoiled through all the lionizing she has received, and worthy of all the honors which have been bestowed upon her. She has rendered a great service in world progress, and we in Great Britain are particularly proud that she is one of us.

TWIN MOTORS POPULAR

J. Frank Knorr, Inc. of Miami, Florida, recently appointed distributors for Scripps marine engines in Southern Florida report unusual activity in the sale of "Scripps Twins. Among the most recent installations are a pair of the 202 and 3 models in the express cruiser Ecila, for A. P. Teetzel of Detroit. Another pair has just been installed in Edorea, a 46-foot Humphrey's cruiser owned by Henry O. Rea, of Palm Beach.

The latest sale was a pair of one hundred seventy-five twins to A. V. Huyler, of Bradenton, Florida. These are for fall delivery to be installed at the yard of Pillsbury Brothers, Bradenton, in Mr. Huyler's 36-foot Albany runabout.

At this time there are two single installations of two hundreds in the vicinity of Fort Myers, and Mr. Knorr has three more of these single installations to be made for fall delivery.

ACANIA LAUNCHED

"I christen thee Acania," and, as Mrs. Arthur E. Wheeler spoke, Acania, designed by John H. Wells, Inc., and built by the Consolidated Shipbuilding Corporation for Arthur E. Wheeler, slipped gracefully off the ways and settled at an even keel—136 feet of steel, beautifully wrought—a veritable palace on water.

Acania is 136 feet o.a., 25 feet beam, and 9 feet draft. She is of all steel construction, has three double and one single staterooms four baths, a living room, dining room, and smoking room, and carries a crew of 16 men. She is equipped with wireless, ice machine, electric lights, four auxiliary craft, and two 6-cylinder 375 h.p. Winton Diesels which attain a speed of 15 knots.

Mr. and Mrs. Arthur E. Wheeler, Mr. and Mrs. F. S. Wheeler, Mr. and Mrs. John H. Wells, Arthur Griese, Charles King, Ralf Coykendall, Rufus B. Burnham, and Morris Rosenfeld attended the launching.

Acania is the second boat of the same name designed by John H. Wells, Inc. for Mr. Wheeler, and is one of the outstanding craft of the season.

Advertising index will be found on 3rd last page

The Dodge Sixteen-Footer

21 DODGE SIXTEENS FINISHED THE 50-MILE SWEEPSTAKES

On Labor Day, twenty-five Dodge 16-foot Runabouts sped around the oval course at Detroit in one of the most remarkable demonstrations of stamina on record.

Every boat was a stock model, exactly like all the other Dodge 16-footers that have been shipped to all parts of the world.

21 of these identical boats, powered with their stock 40-horsepower Lycoming motors, completed the 50-mile race in remarkable time. The winner averaged 27.7 miles per hour for the entire distance, necessarily making much higher speed than this on the straightaways. Seventeen of these sturdy little boats averaged better than 25 miles per hour. Amazing evidence of Dodge consistency and dependability.

Not one boat was incapacitated by hull-trouble or by the failure of the engine or any parts. Twenty-one boats in a crowding swarm stood up manfully under the most severe test that any boat can face—the test of running at full speed in a long and grueling race, through a steady downpour of rain and hail, driven by a heavy wind.

From its introduction at the 1930 Motor Boat Show, down to the last race run, the Dodge Sixteen-Foot Runabout has been truly a sensation. Its remarkable speed and stamina, time-tried and proved, are unmatched in boats that cost sometimes more than twice as much. Its beauty is unescapable. Its dependability is assured by the name of Dodge.

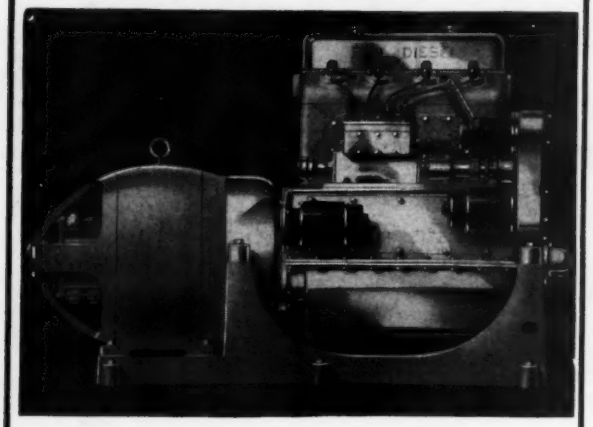
All Dodge Boats—the 21, 25 and 28-foot models as well as the 16-footer—are built alike. Genuine mahogany in every plank, oak ribbed for sturdiness, powered by Lycoming with dependable engines—Dodge Boats represent the utmost in speed and quality, beauty and dependability. Dodge modern production methods, and the world's largest motor boat building plant, enable them to be priced and sold amazingly low. List prices are $945, $2100, $2500 up to $4500 for the 16, 21, 25 and 28-foot runabouts. A complete catalog will be sent free, on request.

If you sell or would like to sell motor boats now and in the season of 1931, write for further information to—

Horace E. Dodge Boat & Plane Corporation, General Sales Department: 21 W. 46th St., New York, N. Y. Works: Newport News, Va.

DODGE BOATS

DIESEL-ELECTRIC



This little Aristocrat of Diesels selected by Cox & Stevens, Inc., New York, for lighting Motor Yacht "Lotosland," owned by Colonel Edward A. Deeds of New York.

The design conforms to the most advanced automotive practices. The weights and dimensions compare with gasoline sets of equal capacities. Uses main engine fuels with remarkably smooth, quiet operation and without smoke or odor. Complete data on request.

The Champion of Small Diesels

HILL DIESEL ENGINE CO.
248 MILL STREET
LANSING, MICHIGAN, U.S.A.

MISS BRITAIN I WINS INTERNATIONAL TROPHY

(*Continued from page 36*)

This he agreed to consider and immediately on his return commenced initial experimenting and subsequent production of a special craft of revolutionary design to comply with the racing regulations.

The result is Miss Britain I radically new in almost every detail and embodying a new method of construction, which will be known in the future as the "Scott-Paine Boat Construction Method." It is not surprising that Miss Britain I has successfully upset a number of accepted theories in connection with motor boat design and practice, when it is remembered that Mr. Scott-Paine has been a prominent figure in the field of aeronautics as well as his motor boating activity.

In Miss Britain I an outstanding feature, is the exceptional strength of the hull bottom in conjunction with a super-structure which forms a light, but deep and rigid center girder designed on accepted aeroplane fuselage construction practice. The 6 cylinder Scripps engine is installed right aft, but no longer does the drive pass forward returning with a long shaft line.

Mr. Scott-Paine's opinion is that the short shaft line adopted, at a more obtuse angle is more efficient and a definite improvement on previous practices. The boat, incidentally, has no freeboard, and is awash aft when at rest. Its head resistance is negligible, while the actual side area is less than that offered by the old methods of boat construction.

There are many unique features embodied and among these is the designer's Patent Dual Rudder Control. This has been greatly modified, however, and the fore rudder is controlled by a rudder bar actuated by the feet. The stern rudder is one of the leading new features of the boat, for which protective patents have been applied, and one which illustrates the infinite attention that has been paid to the prevalent racing conditions to ensure the utmost success. The rules in this class call for all buoys to be left on the port hand. Thus Mr. Scott-Paine has removed the rudder from the continued propeller slip-stream and has offset it at an angle on to the starboard side. This removes the resistance of the rudder from the slip-stream when running straight, and enables the full turning effect to be obtained by deflecting into more solid water and thus directing its own slip-stream into solid water as against letting it slip upwards past the surface into the air as is the necessary practice with a vertical rudder.

The top of the rudder blade is angled and so arranged that when turning to starboard the top of the blade is taken up to the bottom of the hull effectively harnessing the water in that direction. With the propeller shaft bracket we see further developments. The fore end of it is a hollow casting and the actual leading edge of the strut forming an orifice through which the cooling water for the motor is collected. This removes a certain amount of the head resistance of the strut, and totally removes the appendage resistance of a water scoop. The stream line end of the strut has been taken care of by a hollow casing. Many minute details on the bottom of the boat have had special attention with regard to head resistance, while the bottom itself is the most perfect example of boat and wood-working craft.

The gasoline tank has been placed on the port hand side to help the turning effect of the boat, and has been worked in a space and hung in straps allowing the boat to distort considerably without any detriment to the tank. The tank itself is a beautiful piece of work weighing less than three-quarter pounds to the gallon capacity. The fuel system has been taken care of by a Petroflex tubing to a dual system of autopulse fuel pumps controlled by a dual switch, so should one become damaged a stand-by was immediately to hand. The bottom of the tank has been fitted with a large sump with a draw cock to avoid trouble from water or any other matter that may deteriorate the fuel.

Mr. Scott-Paine has included a well-equipped dashboard with three thermometer gauges for the cooling water of the engine, gear box and stern gland, also a revolution counter, ammeter, oil pressure gauge and watch, while the centre of the dashboard is cut away to enable a view to be obtained of the whole of the interior of the hull forward, the cockpit is arranged to give pilot complete protection from windage and inclemency.

Turning to the engine installation, this is one of the most perfect installations that has ever been made. While there is no surplus room, everything is easily accessible and every allowance has been made for adjustments to the motor. The engine itself has been used to assist in the dispersing of structure stresses through the engine bearers, and higher up, to the top of the fuselage fore and aft members.

It is a Scripps Gold Cup motor weighing approximately 900 pounds, and developing about 130 h.p., complete with reverse gear, electric starter and generator. The new propeller shaft deposition adopted, has necessitated the employment of a new type

(*Continued on page 80*)

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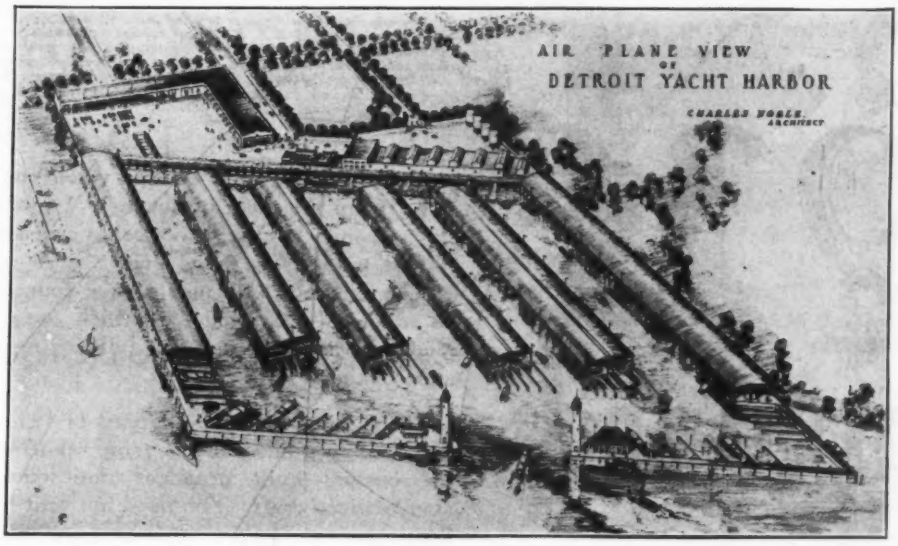
Announcing
DETROIT YACHT HARBOR
Capacity for 1000 Boats



DETROIT, the country's principal manufacturing center for motor boats and marine engines and one of the most popular boating cities, probably offers greater advantages for pleasure boating than any other city in the country. The beautiful Detroit River with its quiet protected waters, reaching into the world's greatest lakes, makes Detroit's position unique. The rapidly increasing number of boats in the Detroit area creates an urgent need for properly organized and centrally located mooring, storage and service facilities under one management.

The Detroit Yacht Harbor, a Michigan corporation, sponsored by Detroit's leading business men, yachting enthusiasts and marine manufacturers, has taken title to 22 acres of property with 900 feet frontage on the Detroit River opposite the Detroit Yacht Club. On the property will be constructed the world's largest and finest yacht harbor with private slips for 1000 boats up to 75 feet in length. Covered slips as well as open slips will be available. The harbor will be operated under Navy discipline with trained, courteous attendants to give patrons every type of service.

The Administration Building will contain private lockers, showers and refreshment rooms for patrons, guests and crews.

The facilities available, consisting of large parking space and private garages, complete Machine, Paint and Woodworking Shops, Fuelling Station, Supply Stores and Marine Show rooms will make this development a self-contained Boating community equalled by no other city in the world.

Municipal yacht basins operated in other large cities have earned handsome profits. The Detroit Yacht Harbor will be privately operated and managed by marine trained executives.

Mail Coupon For Further Information

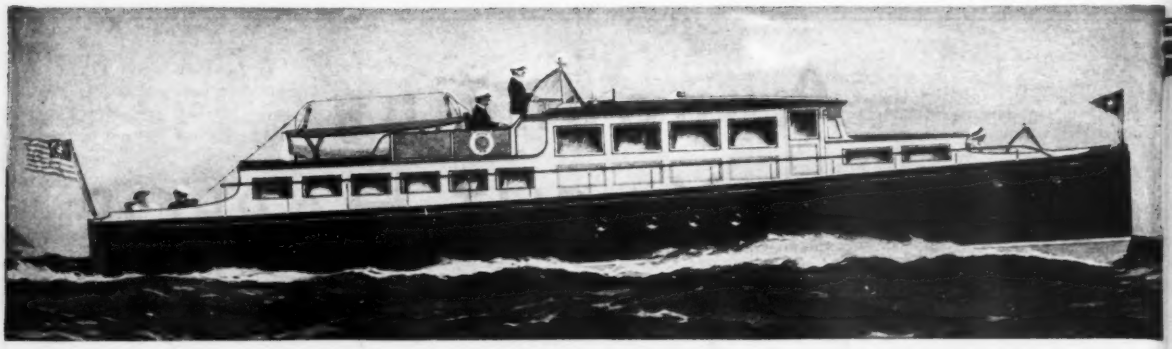
STUART A. HOWARD & CO.,
Dime Bank Bldg., Detroit, Mich.

Please send me circular giving full information on Detroit Yacht Harbor.

NAME .....

ADDRESS .....

CITY..... STATE.....

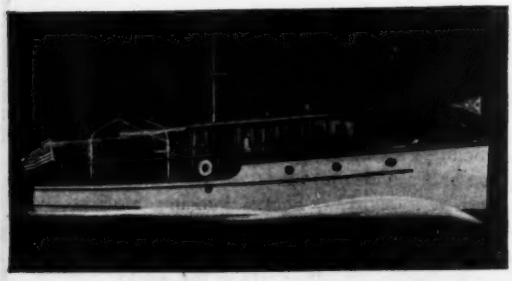


KYLE 75-Foot Twin-Screw Motor Yacht. Ultra modern in design with low sweeping lines. Flying bridge control, forward and aft cockpits. Accommodations for eight to ten and crew of four. Speed 18 miles per hour with two 175 H.P. Hall-Scott motors. 500-mile cruising radius. Custom construction throughout. Equipment and furnishings complete to the last detail including draperies, linen, silver, cooking utensils, dishes and deck fittings. Delivery available February, 1931.

The 1931 Vanguard

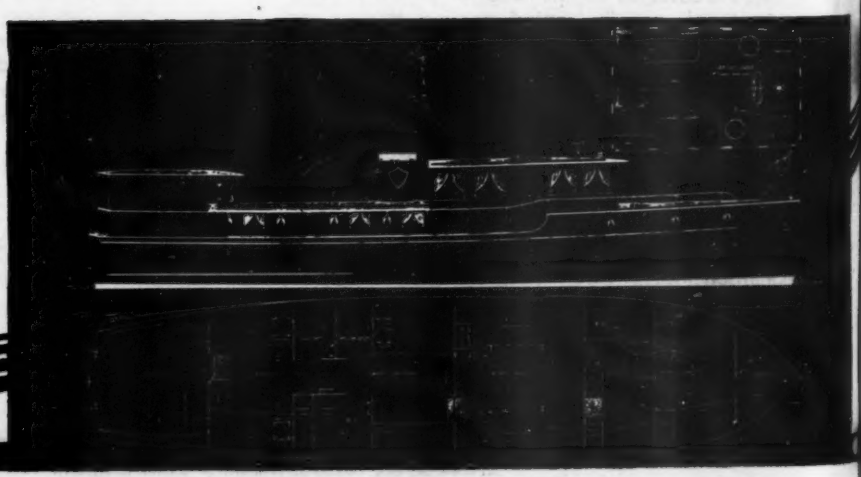
WHY buy a 1930 cruiser when you can select from this fleet of seven 1931 models, ranging from a family 30-foot cabin cruiser to a rakish 75-foot twin-screw flying bridge deck motor yacht, a craft that not only meets your requirements, but an advanced 1931 model of which you can take immediate possession or have delivery in time for the approaching Florida season.

These boats are the vanguard of 1931. They embody the very latest in sea-going refinements, including custom built practices not found on other standardized craft. You need not wait for the motor boat shows to learn what is new for next year—you have it here in these cruisers. Furthermore, in purchasing one of these 1931 boats—the first cost is your only initial cost, as each model is complete in every detail; even china, silver, linen and cooking utensils are supplied.



STEPHENS 55-Foot Twin-Screw Motor Yacht, a custom-craft at production price economy. Luxurious accommodations for six to eight people. Speed 21 to 25 miles per hour with two 200 H.P. Scripps or two 300 H.P. Hall-Scott motors. 400-mile cruising radius. The "55" is also available with flying bridge control. Equipment and furnishings include all necessities for immedate cruising. Delivery in December.

STEPHENS 43-Foot Twin-Screw Cabin Cruiser, a deep water craft, embodying the most advanced cruising appointments for seven persons. Crew's quarters for one hand optional. Speeds, 18 to 23 miles per hour with two 100 H.P. or two 200 H.P. Scripps engines. 350-mile cruising radius. Complete with linen, china, and silver service. Immediate delivery.



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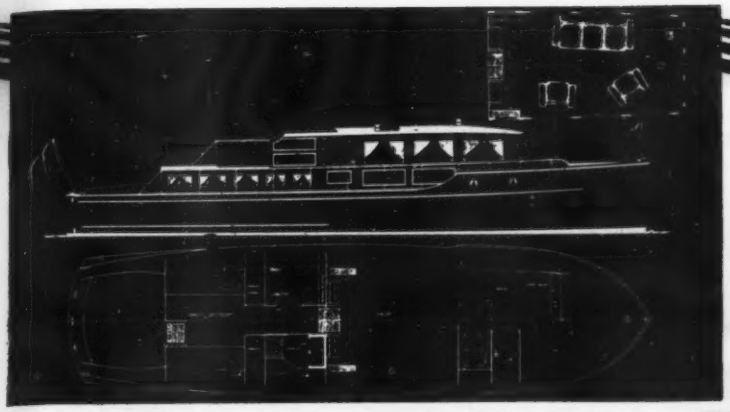
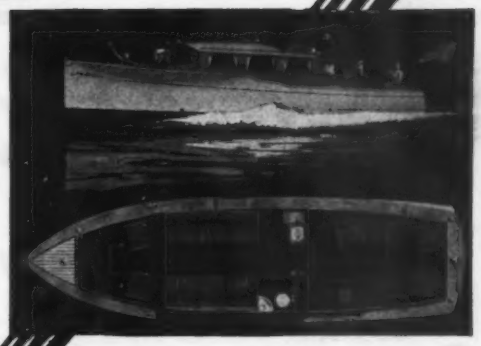


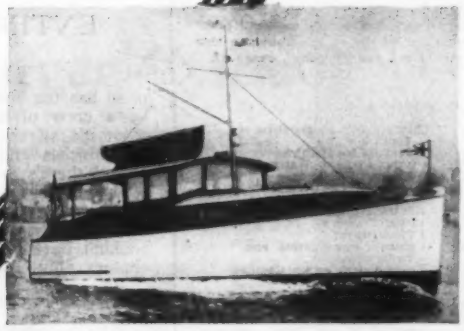
STEPHENS 48-Foot Twin-Screw Commuter. This boat has many unique and advanced features. For example, the main saloon is 16 feet long and entirely private, operating controls being centered on flying bridge. Overnight accommodations for four people. Crew's quarters for one. Speed 25 to 32 miles per hour with two 200 H. P. Scripps or two 300 H. P. Hall-Scott motors. Completely furnished, ready for service. Delivery in December.



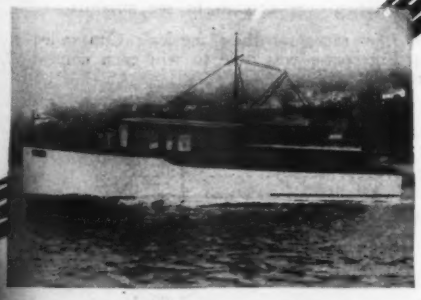
KYLE 32-Foot Twin-Screw Sport Cruiser, a sleek craft with bridge deck controls, forward and aft self-bailing cockpits and sleeping accommodations for four. Speed, 22 miles per hour with two Gray 72 H.P. motors. Cruising radius, 375 miles. Furnished complete with china, silver and cooking utensils. Delivery in December.

In the limited space of this announcement it is impossible to describe in detail the many superior construction features of each model, their cleverly designed and commodious accommodations which make living afloat as comfortable as in your own home.

Furthermore, each of the boats illustrated is purchasable at a price which makes it the outstanding dollar-for-dollar value in its class. You will realize this more after you have an opportunity to study the features of each boat and compare them with other boats on the market. Full particulars are yours for the asking.



KYLE 30-Foot Double Cabin Cruiser, sleeping six people. This boat is a marvel for roominess, and completeness of accommodations. Speed, 12 miles per hour with Gray 72 H.P. motor. Cruising range, 400 miles. Immediate delivery ready for cruising. No extras to buy. Only cruiser of its size with boom for handling dinghy.



KYLE 36-Foot Deck House and Cabin Cruiser. This boat with operating controls in forward deck house and living quarters aft is unsurpassed for size and completeness of its living quarters by any cruiser of equal length. It sleeps six. Speed, 18 miles per hour with Gray 110 H.P. or Hall-Scott 100 H.P. motor. Delivery in December fully equipped and furnished for immediate cruising.

Brokerage Service

Our brokerage department has a very fine list of cruisers and yachts for sale or charter. Let us know your requirements. If you desire to sell or charter your boat, let us be of service to you.

Write today for full particulars and price, stating model of boat in which you are interested.

S. CLYDE KYLE

General Motors Building

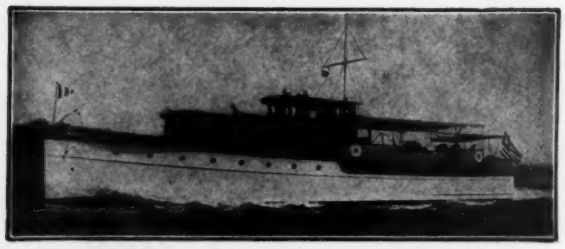
1775 Broadway — New York, N. Y.

Two Showrooms — *in California*

Rialto Building
San Francisco, California

8725-27 Wilshire Blvd.
Los Angeles, California

Representatives in Metropolitan New York for Robinson Seagull Cruisers 39 to 45 Feet and Corsair Cruisers.



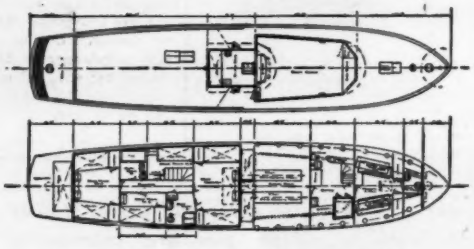
Order Now for Florida Delivery

Now is the time to place your order for the boat you want to use in Florida waters. Our standardised 77-footer, built originally to individual specifications, is constructed in strict accordance with the highest class practice in yacht designing. It is steady and reliable under all weather conditions, thoroughly seaworthy, and built for long hard service. It has extraordinary grace of line, it is speedy, beautifully finished, with furnishings and equipment found only in yachts of much larger dimensions.

It will pay you to visit our Shipyard and examine this wonderful boat at your leisure and test its performance on the water. Telephone for an appointment. Full details, exterior and interior views, prices, etc., furnished on request.

SPECIFICATIONS

16-foot Beam
Double-planked Hull
Decks of Teak
Houses of Mahogany
Two Double Staterooms
Two Single Staterooms
Two Bathrooms
Combination Dining and Living Room
Large Deck House
Captain's Stateroom adjoining Pilot House
Galley running full width of boat
Quarters forward for Crew of Four
Frigidaire Ice Machine
Decatur Pressure Water System
110-volt Electric Generator
Bilge Pump
Electric Windlass
15-foot Tender
12-foot Dinghy
Unusual Appointments and Refinements
Powered with either Gasoline or Diesel Motor



Ever since we started business over thirty years ago, our Custom-built Department has been an integral part of our organization. We are ready to submit plans and specifications covering your individual ideas and desires.

The New York Yacht, Launch & Engine Co.

Morris Heights, New York City

Phone: SEDgwick 4850

MISS BRITAIN I WINS INTERNATIONAL TROPHY

(*Continued from page 76*)

of return drive gear box of greater shaft angle than has been used in this country before. It is on this item of the equipment that Mr. Scott-Paine has been experimenting for a considerable period, particularly so as to obtain a quiet running gear-wheel. Gear noises are un-noticeable with this new gear box; and cooling is effected by the circulating water prior to its being passed to the engine.

Turning to the hull, it is difficult to arrive at a first impression for in appearance and on analysis, so revolutionary is this boat it might be expected to be un-seaworthy and dangerous. Actually it has proved a wonderful sea-boat, absolutely dry and—despite the fact that all step boats must be necessarily tricky—more foolproof than any other hydroplane yet constructed. It has also wonderful turning capabilities, surprising stability in any kind of seaway, and extraordinarily good trim when running at speed. Moreover, there is no wash or moment fore and aft of any sort.

As regards the boat's dimensions the following data is of interest:

Length	20 feet ½ inch	(water-line)
Beam	5 feet 8 inches	
Beam amidships	5 feet 6 inches	
Height of amidships super structure	1 foot 9 inches	
Width of amidships super structure	1 foot 9¼ inches	

The bottom is built of mahogany and is ½ inch thick.

The sides are ⅜ inch thick.

The inter-girder frames 2½ by 3⅛ inch of mahogany, singly braced going out of a main fore and aft structure, built up of 1 by 1 inch spruce, fastened by 3-ply gussets to one another, thus bracing the whole structure.

The main cockpit where the pilot sits and the forward cockpit to accommodate one passenger, have been restricted to the minimum dimensions. In fact so far as the owner is concerned it has been made to measure as it were!

ENTERPRISE KEEPS THE CUP

(*Continued from page 20*)

prise has the better hull and the faster rig, and has been sailed by a crew of amateurs and professionals who know exactly what it's all about. She could have won hands down without the winches and the dynamometers.

And there's another thing, Mr. Editor, from the motor boat viewpoint, in case you think I'v gotten off my text. The motor boats in the spectator fleet looked as slick and shiny as a day in early May, and you know as well as I do that the cup series couldn't have been witnessed without them. Not that the rum chasers allowed them to get near enough to see anything.

A summary of the four races for the America's Cup sailed this year shows that Enterprise was able to win each contest easily by an ample margin.

September 13, 1930
30 mile windward and leeward course

Enterprise	4:02:05
Shamrock V	4:05:42
Won by	2:52

September 15, 1930
30 mile triangle

Enterprise	4:00:44
Shamrock V	4:10:18
Won by	9:34

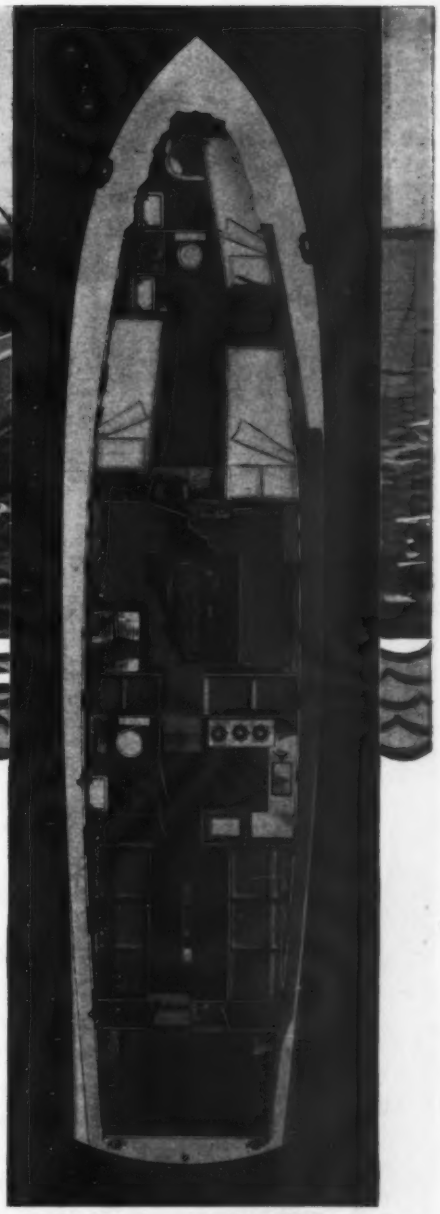
September 17, 1930
30 mile windward and leeward course

Enterprise	3:54:16
Shamrock V	Did not finish

September 18, 1930
30 mile triangle

Enterprise	3:10:13
Shamrock V	3:15:57
Won by	5:40

Advertising index will be found on 3rd last page



The more you know about the Burger "46" the nearer you are to owning one

WHEN you know the Burger "46" better, you will understand why *experienced* boat owners choose it for their own. They prefer the Burger "46" because it overcomes the deficiences of the boats they had previously owned. They find a perfect match for their experience in Burger's 65 years' experience in designing and building better boats. The points of difference that set the Burger "46" apart are graphically and photographically explained in a beautifully colored printed creation —"The Masterpiece of a Pioneer Boat Builder." Not for promiscuous distribution, but obtainable by interested prospects in exchange for the coupon.

BURGER BOAT COMPANY, *Manitowoc, Wisconsin, U. S. A.*

Fully to appreciate ALL that this plan can tell you about the completeness of equipment, unique utilization of space, comfort, roominess, privacy and accessibility of compartments, etc., you must see the greatly enlarged plan shown in the handsome, large, illustrated exhibit which is mailed on receipt of the coupon below.

BURGER

BOATS BEAUTIFUL

BURGER BOAT CO.
Manitowoc, Wis. (MB-4)

Please send me a copy of "The Masterpiece of a Pioneer Boat Builder."

Name.....

Address.....

City.....

This Log
Tells the Truth About
Your Speed

At a glance you can see how fast you are going. This splendid new instrument is accurate and dependable. Owners are enthusiastic about it and would never go without it again . . . Many boats are overrated in speed, which causes inconvenience oftentimes, and danger occasionally . . . The National Log shows your trip mileage and your total mileage as well as your speed. It is a great help in navigating by chart and compass—a life saver in a fog—and a constant check on your engine. There is no connection with motor power, nor towage of apparatus.

THE NATIONAL LOG
Models H or J for 35 or 60 M. P. H.
$150.00 each

NATIONAL MARINE SPEEDOMETER
Outboard Model $18.50 each

Ask your dealer and if he has none on hand, write us direct and give us his name.

THE NATIONAL LOCK WASHER CO.
40 Hermon Street · Newark, New Jersey

WEATHER MAP BY RADIO

(*Continued from page* 39)

The map was picked up by the S.S. America just after passing Fastnet, Ireland, on her westward journey.

In spite of technical difficulties encountered in the installation of the photo-radio equipment on shipboard where special conditions such as the ship's vibration and electrical pick-up from the ship's generators exercise influences not present at receiving stations on land, the map was, in the words of Commander George Fried, of the America, "very good." An officer of the broadcasting company also remarked that the first map and others that have followed "were very enthusiastically received by captain, passengers and crew."

By means of such maps the navigation officer of a vessel may determine hours or even days in advance what character of weather will likely accompany him on his eastward journey or what he will probably meet as his vessel proceeds westward; for the general trend of weather is from southwest to northeast. Not only may he predict his own weather conditions but he may judge with considerable accuracy what the weather is likely to be to the right and the left of his planned course.

Because of this picture of the weather over a wide expanse of ocean he will be in a position to decide upon a change of course should such be advisable, either to avoid a storm or adverse winds, or to take advantage of more favorable winds and fairer skies. In such ways he may both render ocean travel more safe and agreeable for all on board and in many cases avoid delays and shorten the sailing time of his trip.

Though the number of American and European land stations that, during the past summer, reported weather data was fairly constant the number of ship reports varied from day to day. To give an idea of the comprehensiveness of the service it may be mentioned that in addition to the American stations about thirty foreign ones are located in Canada, Newfoundland, Greenland, Iceland, Norway, Sweden, Denmark, Germany, Scotland, England, Ireland, France, Spain, Portugal, Italy and various Mediterranean islands as far east as the Grecian Archipelago.

During these experiments the number of ships reporting has been limited by the available funds. Now, however, that success has crowned the efforts of both scientists and broadcasters, it remains only for the traveling public and navigation concerns to demand that every vessel shall be equipped with suitable apparatus for receiving weather maps just as these interests have compelled the installation of radio on shipboard.

Reporting data from ship to shore is merely a matter of using the radio apparatus already installed to send observations which every navigation officer records as a matter of routine in the ship's log. All the required items may be covered by the name of the vessel and either five code words or four groups of five figures each (by another code), as the two following instances show:

"Leviathan 10471 28912 28301 14964." When this is decoded it reads: "Leviathan. Sunday noon, Greenwich Mean Time, August 23. Latitude, forty-seven degrees, six minutes north. Longitude, twenty-eight degrees, fifty-four minutes west. Wind, northwest, ten miles an hour. Sky almost clear, Barometer, twenty-nine and ninety-five hundredths inches. Visibility excellent. Air temperature sixty-four degrees."

"American Legion (vessel) houdah fiscal norwood usurp namby." When decoded this means: "Seven, P. M., August twenty-third. Latitude, thirty-six degrees, six minutes north. Longitude, sixty-eight degrees, twenty-eight minutes west. Barometer, thirty inches. Air temperature eighty degrees. Wind southwest, ten miles an hour. Sky partly overcast."

When such data are received in the New York office of the Weather Bureau they are written in their indicated positions on a large outline map which shows most of North America, a large part of Europe and the North Atlantic Ocean. When this map is filled out the part which shows the Atlantic and the shores of America and Europe is transferred to a smaller map and sent to the broadcasting company where the lines and data are made more prominent so as to reproduce strongly when placed in the forwarding radio machine.

If a perusal of the foregoing paragraphs has suggested that a large amount of time must be necessary to do the work of map making and forwarding, the reader will be surprised to learn that during the experiments several maps were received on shipboard in little more than an hour after their delivery to the broadcasting company and practically all in less than two hours. The significance of this will be the more striking when it is realized that the maps may be picked up and be of value not only at any point on the Atlantic between the Equator and the Arctic Circle, but, when followed successionally from day to day, more or less also in the Mediterranean and the Baltic seas.

Advertising index will be found on 3rd last page

Gar Wood Writes,

After Successfully Defending the Harmsworth Trophy and Establishing Two New World's Records:

"Your Philippine Mahogany stood up perfectly and our examination showed the bottom was as good after the race as it was before."

GAR WOOD INC.
THE GREATEST NAME IN MOTORBOATING
FACTORY BRANCH, 1660 BROADWAY
NEW YORK CITY
COLUMBUS 1308
GENERAL OFFICES & FACTORY MARYSVILLE MICHIGAN

September 4th, 1930.

Mr. H. R. Black,
Black & Yates,
New York City.

Dear Mr. Black:

I want to thank you again for helping me personally to select the Philippine mahogany we used in building Miss America IX. This contributed materially to the fine results we attained with this boat.

Miss America IX not only defended the Harmsworth Trophy successfully this year but also established two new world's records in competition —77.380 miles per hour for thirty nautical miles, and 79.082 miles per hour for a five mile lap. The only boat speeds higher than this have been made on straightaway runs and mile trials without turns.

The bottom of a racing boat particularly is subjected to terrific strains. At 80 miles an hour the water is practically as hard as concrete. In rough water and on the turns the bottom planking gets a terrific pounding. Your Philippine mahogany stood up perfectly and our examination showed that the bottom was as good after the race as it was before.

Sincerely yours,
Gar Wood

GAR WOOD also says "The bottom of a racing boat particularly is subjected to terrific strains. At 80 miles an hour the water is practically as hard as concrete." In a racing boat strength, durability and light weight are of the most importance. That is why Gar Wood selected

Black & Yates' Philippine Mahogany

This superior wood is the standard for good boat construction. It is used by all leading boat builders, not alone for its strength, durability and light weight, but because Black & Yates' Philippine Mahogany is free from pin worm hole defects, beautifully figured and easy to work. It comes in good widths and lengths. Imported DUTY FREE from the Philippine Islands, it is low in price.

Two million feet of clear Philippine Mahogany is carried in stock at our Brooklyn, N. Y., yard at all times. Let us quote on your requirements.

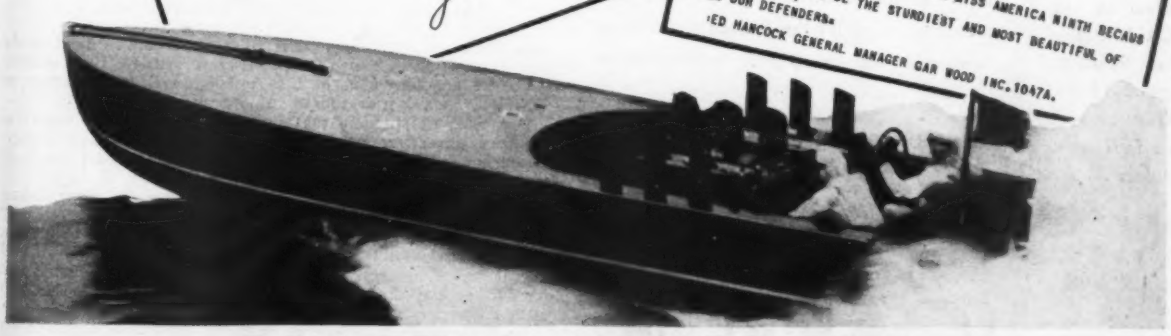
WESTERN UNION

Class of Service
This is a Fast Message unless its deferred character is indicated by a suitable symbol above or preceding the address.

Received at

N9 24=MARYSVILLE MICH SEP 6 1025A
H R BLACK,CARE BLACK AND YATES INC=
PARAMOUNT BLDG=

GLAD WE SELECTED YOUR LUMBER FOR MISS AMERICA NINTH BECAUS IT HAS PROVEN TO BE THE STURDIEST AND MOST BEAUTIFUL OF ALL OUR DEFENDERS=
ED HANCOCK GENERAL MANAGER GAR WOOD INC.1047A.



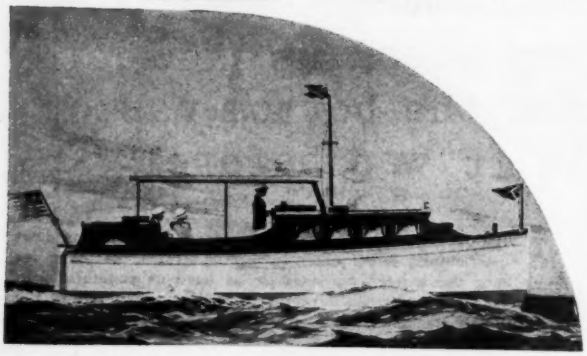
BLACK & YATES, Inc.

1501 Broadway — Paramount Building — New York City

TELEPHONE: LONGACRE 1345-6-7

Announcing

The NEW SCALLOP



SOONER or later it had to be built . . . a boat for the man of moderate means . . . for the man who has longed for a craft of his own but couldn't afford it.

At next year's Show, SCALLOP will make its bow . . . a sleek, crisp, graceful yacht . . . a trim and tailored craft that sleeps 5 and delivers good speed at lowest operating and upkeep expense.

Thirty feet of honest, wholesome boat... built for bull-dog stamina and unfailing performance. First to eliminate the unnecessary gadgets that add to cost but not to performance. First to build a real boat for less than the cost of a good car.

SCALLOP will be the talk of the 1931 Show. It's the boat you'll want to see first. It will attain new popularity for motor boating. It's the cruiser that makes it possible for you to yield to temptation . . . And you will . . . !

MILLARD, BREWSTER & CHAMBERS, Inc.
230 Park Avenue · New York, N. Y.

DEALERS *will be interested in the SCALLOP and the Scallop Agency Plan. Write or wire for full particulars . . .*

The New 30 Foot
SCALLOP
$3350

TIDAL WAVE WINS AUXILIARY RACE

(*Continued from page* 40)

lets go at 3:20; in five minutes the preparatory gun bangs forth and instantly all hands duck below because that is one of the regulations. Before the smoke has cleared away for the starting gun at 3:30 all hands are on decks hoisting anchors and sails to get away. And they *get* away.

I think for the first time in history a prize has been given the last boat to finish. Siren won this. The prize is a sterling silver plate bearing the inscription: "Last in the Cornfield Race (and then there is the rectangular flag of the Huntington Cruising Club). But I had the longest sail and the finest time. Presented to the yacht Siren by the Huntington Cruising Club."

It is a long way from Huntington to the Cornfield light vessel when the wind "isn't" and gasoline is precious. There are tides to be considered and the ever present problem of when to run the motor and when to drift or sail. It is all fun and interest.

I think the log of a race in so little air as this was run in would be dry reading. So far as Ben Bow is concerned the high lights are the following: our navigator Newt. Wigton was swept overboard by a very leisurely jibe; then we passed precisely the same abandoned skiff on the way out the sound and on the way in; and a big school of porpoises came to play with us, harbingers of wind they are, but were undoubtedly a little out of tune with the elements that produce winds. Nor must I forget that Kermath motor. Just under 16 hours she gave us on 5.1 gallons of gasoline. It would be interesting to know how the rest of the fleet fared in the matter of gasoline.

At 4:38:15 p.m. August 31, Tidal Wave finished, followed by Ben Bow at 6:42:12 p.m. Phantom took third prize, finishing at 12:37 a.m. Sept. 1st. A summary of the finish follows:

Boat	Owner	Gasoline Allowance	Time Allowance	Finish	Corrected Time
Tidal Wave	Sam Wetherill	5.1	1 " 50 "	6:42:12 Aug. 31	25:12:12 Afternoon
Ben Bow	Wm. Atkin	5.6	2 " 00 "	12:37:00 Sept. 1	31:07:00 Morning
Phantom	Henry Bixby	5.3	1 " 40 "	1:44:10	32:34:10
Adalante	Fred Geiger	6.3	20 "	12:13:34	33:23:34
Dragon	P. S. Patton	7.9	1 " 10 "	2:39:35	33:29:35
Sail Ho	J. S. & J. F. String	5.3	1 " 40 "	3:22:43	34:12:43
Unalga	George Rulon	5.3	1 " 00 "	2:54:58	34:24:58
Trump	I. D. Jakobsen	8.2	1 " 20 "	3:34:35	34:50:40
Dragon	George Neville	7.0	50 "	3:21:41	35:01:41
Harbinger	Gordon Munroe	8.1	10 "	5:35:56	37:55:56
Norseman	Henry Starke	6.3	20 "	7:31:38	39:41:38
Reliance	Adolph Urfer	8.0	50 "	8:03:01 Sept. 1	39:43:01 Afternoon
Gulnare	L. W. Freeman	1.8	3 " 30 "	12:10:45	41:10:45
Hippocampus Jr.	El. Sprague	2.8	3 " 30 "	12:29:28	41:29:28
Siren	Chas. H. Bidwell	8.2	1 hr. 10 min.	4:39:15	23:59:43

And so you see 15 boats finished. Those not listed above either dropped out in order to get to their home ports before Tuesday and business or used their reserve gasoline.

An thus goes another Cornfield race into the past.

PACIFIC COAST SHOW IN MARCH

The third annual Pacific Coast Boat Show will be held in the Civic Auditorium in San Francisco, March 7 to 14, 1931, according to the announcement of the Associated Boat Industries of California, sponsors of the event.

Every inch of space in the auditorium, one of the largest in the entire west, was taken during the 1930 show, which drew an attendance of close to 100,000, exceeding that of the first show by several thousand.

In connection with the boat show, the Associated Boat Industries has twice originated and sponsored America's longest open water motor boat race between Long Beach and San Francisco, and Los Angeles and San Francisco in 1929, a distance of 447 nautical miles, as well as the longest outboard runabout race over a river and bay course of 92 nautical miles between Stockton and San Francisco.

The 1930 Boat Show opened with 81 exhibitors representing over 200 manufacturers, displaying 12 cruisers, 18 runabouts, 32 outboards, 6 sail boats, 15 other small boats. All prominent engine and accessory lines were represented. Attendance on the opening night 8,842.

Frederick Weddleton has again been named manager for the 1931 show and already is in the midst of arrangements for the big event.

Advertising index will be found on 3rd last page

Nothing *Finer* Can Be Said of Any Motor Boat Than, It is -

LYCOMING MOTORS

LYCOMING MANUFACTURING CO.
WILLIAMSPORT, PENNSYLVANIA

It is significant that Dodge Boats are exclusively powered by Lycoming Marine Engines.

THESE TWO PAGES ARE

To the man who wishes to

upon terms which do not call for

THERE are many thousands of business men who have delayed the buying of sound stocks because they have not been in the position to make substantial cash outlay.

On the page opposite there are facts of interest to every man who wishes to make a conservative investment upon terms which meet such a situation.

This offering of preferred stock meets in every respect the requirements which experience has proved are essential to sound investment.

1 It must have ample earnings to meet dividends.

2 These earnings come from established and diversified sources.

3 It must have in back of it a record of accomplishments.

4 It must have a quick liquidating market.

5 As it makes possible a larger number of shareholders, thus broadening its distribution, it is advantageous to have it made available on terms which do not put an immediate drain on present cash reserve of the purchaser.

6 Its attractiveness is increased if it provides purchasers an opportunity to share in earnings through a participation additional to the fixed stipulated rate of return. In short, the security as well as the company, must have an inviting future.

This offering of HEARST CONSOLIDATED PUBLICATIONS INC. meets the above requirements in every respect as well as affording you an opportunity to save money instantly and have each months savings earn 7% per annum starting from the day each payment is made—You are asked to read first, the statement of earnings.

7% Cumulative Participating Class A Stock

HEARST CONSOLIDATED PUBLICATIONS, INC.
1008C Hearst Building, San Francisco

Kindly send full details about your 7% Cumulative Participating Class A Stock

NAME.....

ADDRESS.....

.....

Advertising index will be found on 3rd last page

OF SPECIAL INTEREST

make a Profitable Investment

a large immediate cash payment

BELOW ARE A FEW FACTS REGARDING THIS OFFERING

(The coupon will bring you full details)

On your investment you will receive 7%.

This stock is preferred both as to assets and dividends.

The price of one share is $25.

This one share (or as many as you wish to subscribe for) may be purchased with an initial payment of $5 followed with $2 per month. Your installment payments will earn you 7% interest from the date of payment to the date on which you make the last payment.

Application will be made to list this stock on the New York Curb, Chicago, San Francisco and Los Angeles Stock Exchanges.

The dividend will be paid four times a year.

Owners of stock have the opportunity to participate in additional profits to the extent of an extra 3%.

These properties have been long established. They are leaders in what has become through the eager, incessant daily demand of the public, one of the great industries of America.

Further, these newspapers serve cities which are growing in population and which will continue to offer markets growing as America grows.

Whether you are a large regular investor or whether you have never made a purchase of stocks, the opportunity to acquire an interest in a carefully administered growing corporation is presented to you. For the first time participation in these properties is offered to the public.

The coupon is for your convenience and will bring you full details.

These are the earnings

Year	Net Earnings*	Times Dividend Requirements on Class A Stock
1926	$10,009,806	2.86
1927	10,162,284	2.90
1928	11,044,777	3.15
1929	12,854,626	3.67
Average	$11,017,873	3.14

*After depreciation, interest and Federal Income Tax.

These earnings come from the operation of these profitable newspapers

	Established
New York Evening Journal	1896
Chicago Evening American	1900
Pittsburgh Sun-Telegraph	1841-1906
Detroit Times	1900
San Francisco Examiner	1880
San Francisco Call-Bulletin	1856-1874
Oakland Post Enquirer	1886
Los Angeles Examiner	1903
Los Angeles Evening Herald	1911
Seattle Post-Intelligencer	1865
The American Weekly	1882

Opportunity to acquire, in one investment an ownership interest in eleven metropolitan newspapers is now made available to the general public through

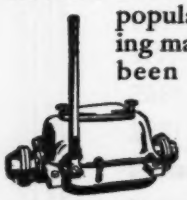
HEARST CONSOLIDATED PUBLICATIONS, INC.

[*In October—or Any Other Month*]

That "Something Extra" in Paragon–Equipped Engines

WHEN an engine buyer is undecided it is usually "something special" which finally closes the deal.

Don't forget that the added Quality and Prestige needed to do the trick is the "something special" that is offered by Paragon High Speed Reverse Gears. America's most popular and largest selling marine engines have been equipped with Paragon Gears for years. ***That*** **tells the story.**



The 90 line

PARAGON

Ball Bearing Equipped

100% Oil-Tight Enclosed Models

PARAGON GEAR WORKS

609 Cushman Street, Taunton, Mass.

CATRUS II WINS SCRIPPS TROPHY

(*Continued from page* 41)

The average time established by Catrus on this 122 mile run was 15.81 miles per hour. She required only 7 hours and 43 minutes to cover the distance and made a very successful run. She was closely followed by the cruiser Sapphire owned by Dr. O. T. Toepel which lost her chance to win the race by a mishap to the rudder. Temporary repairs were effected and the boat steered over a considerable portion of the course by means of a large Stillson wrench attached to the rudder stock. The cruiser Bettywin III which won the Scripps Trophy in the race last year could do no better than fourth place this time. She was again piloted by L. W. Forrester and covered the course at a rate of 10.37 miles.

It was generally agreed by both contestants and race officials that the weather was not exactly fair to all. The storm mentioned offered an additional and most severe handicap to the early starters while the rain which fell heavily later in the night flattened the sea considerably and provided easier going.

On the return to the Detroit Yacht Club the next morning the skippers and crews of the fleet were breakfast guests of the club. Commodore Otto F. Barthel, chairman of the race committee took the occasion to speak on the history of the Scripps Trophy and praised the hardihood of the crews which made the long and difficult run under the exceptional conditions existing at the time. A summary of the competing boats follows:

Boat and Owner	*Elapsed Time*	*Miles Per Hour*	*Position*
Catrus II, Russell A. Hart	7:43:56	15:81	1
Sapphire, Dr. O. T. Toepel	8:00:55	13:56	2
Chanwi, W. D. Ogden	11:56:08	10:24	3
Bettywin III, L. W. Forrester	11:47:19	10:37	4
Kathleen, W. A. Bellows	12:26:52	9:83	5
Bo Peep II, I. M. Kirlin	11:43:22	10:43	6
Fiji II, F. Riebel, Jr.	11:25:29	10:70	7
Whitewood II, Dr. A. R. Hackett	8:42:20	14:04	8
Betty C, S. W. Curtis	13:44:27	8:89	9

The following boats started but did not finish: Ede-Roy owned by R. E. Williams, Rob-E-Lo owned by R. E. Lynn, Ja-Mar owned by J. W. Fortune, Sni-Bird Too owned by George A. Naumann, and Velma E.

LOS ANGELES HAS NEW SHOW ROOM

(*Continued from page* 43)

in oil from the brush of old masters. One particularly hanging directly aft of the Stephens 43, made one feel when they were sitting in the cockpit of this little master ship that they were riding at anchor on the blue waters of Monterey Bay.

And one can become more truly enthusiastic about yachting as a sport of Kings when he particularly learns that this sport can be had at such little cost.

On the floor of this Salon there are many various types and sizes of cruisers and runabouts, varying in price from $350 up to $25,000.

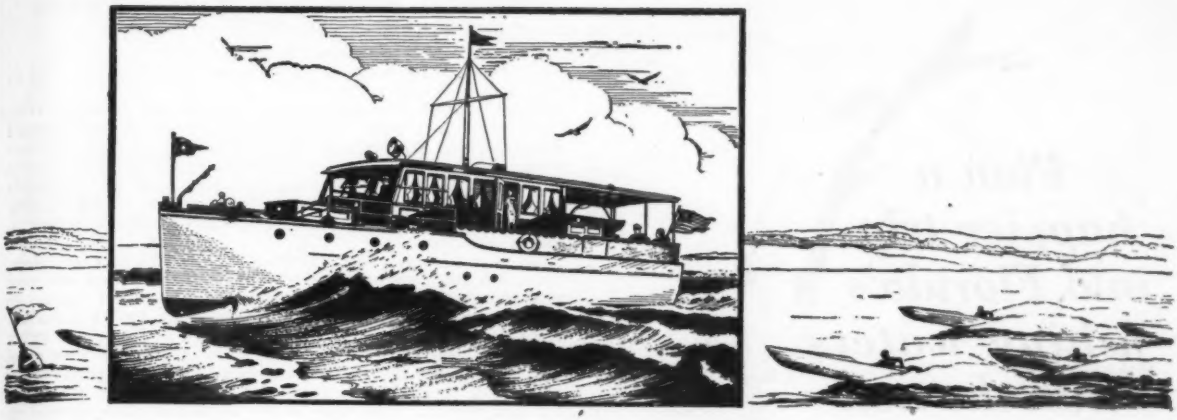
A most novel exhibit that attracted considerable attention was some of the various safety devices such as C-O-Two Fire Equipment, the Lee Blower used for the purposes of ridding the bilge of all foul and dangerous gases and other various accessories, all contributing much to one's happiness in the life aboard his ship.

The interest in the opening of this Salon is best described when we say that on the first night, with a limited amount of publicity, there were over 560 visitors, and since the opening night there has been more than 300 people a day looking with interest at these various exhibits.

It is all so new and novel to the native and has aroused his interest considerably—and with the new development taking place in the creation of a new yacht harbor at Santa Monica, which will afford proper housing facilities for about 1,000 boats, one can well appreciate there awaits those who are in this particular line of business an opportunity full of many possibilities for the manufacturer and sale of all types of runabouts and cruisers, as the seasons are such that one can use his boat all the year around.

There are a great many other details in the appointment of this Salon that could be elaborated on, but the outstanding feature of it all is that it makes possible the greatest convenience to the prospective client to inspect and purchase his cruiser or runabout under the most favorable conditions.

Advertising index will be found on 3rd last page



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Because—There is a particular grade of Mobiloil for every make of engine.

Because—Mobiloil is specially refined to stand up longer—resist heat and pressure at high speeds—minimize wear—and prevent excess carbon and gumming.

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We will be glad to send, free of charge, a copy of our new booklet on the correct operation of motorboat engines. Mail this coupon now for your copy of "Shove Off."

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Plan a happier trip into Florida's fishing waters with the new

MARBLEHEAD GUIDE BOAT

FLORIDA'S fishing beckons again with the lure of sunrise starts, singing reels, and swooping, fighting game fish. Thrilling sport with giants of the sea—tarpon, sailfish and marlin. Matching wits in the bays and passes with the speed and cunning of the robalo and redfish.

The wise fisherman knows how a trip can be ruined by a slow, sloppy, make-shift guide boat.

He no longer needs to alter and adapt a northern-built boat to his tropical fishing needs. A Florida fisherman has now designed a guide boat especially for use in Florida waters. It is built in Maine by seasoned craftsmen, for seaworthiness and the special fishing conditions in the South.

Ample room for poles; spacious forward and aft cockpits, special fish well; comfortable sleeping accommodations and conveniences for four. Twin screw. Speeds from trolling range up to 20 miles per hour. Unusually low in price.

You'll find the Marblehead Guide Boat a handy "Man-Friday" if you take your house boat South. Its remarkable seaworthiness makes it a dependable means of contact with shore as well as the perfect guide boat for your fishing trips.

Let us tell you how the Marblehead Guide Boat can be easily and inexpensively taken or shipped to Florida. Begin your plans for this season's trip by writing us for complete information on the new Marblehead Guide Boat.

STAPLES, JOHNSON & CO.
500 POOL STREET
BIDDEFORD - - - MAINE
It costs less to build better boats in Maine.

4332

GENERAL MOTORS ACQUIRES WINTON PLANT

(*Continued from page* 45)

which run into the shipping room, located at one end of one of the assembly floors.

In the field of fine yachts from 65 to 250 feet in length, Winton Diesels have been an outstanding feature, having powered more ships of this class in the past two years than all other engine builders combined. Among the recent additions to the large fleet of Winton powered pleasure craft are the yachts Rene, owned by Alfred P. Sloan, Jr.; Nakhoda, owned by Fred J. Fisher; Cambriona, owned by Walter O. Briggs; Olive K, owned by Chas. F. Kettering; and Lotosland, owned by Col. Edward A. Deeds. Rene, Nakhoda and Cambriona are sister ships, 236 feet long overall, and rank with the largest and most magnificent pleasure craft in the world. The main engines in each are two 1,100 h.p. Winter Diesels. Col. Deed's Lotosland is similar in design to the above boats, but is 205 feet, 8 inches long, and powered by two 500 h.p. Winton Diesels. Two novel features are included in the Lotosland. One is a special organ with pipes occupying space on the berth deck, and console in the living room. The other is the amphibian plane carried on top of the after deck house, which permits the owner to leave or join his yacht at sea.

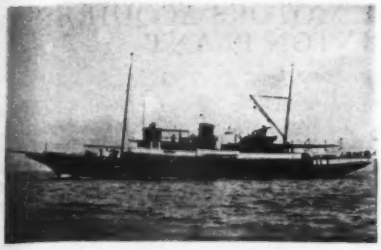
Gadfly II, an auxiliary schooner owned by F. H. Rawson powered with 270 h.p. Winton diesel engine

Mr. Kettering's boat, Olive K, 170 ft. long, is one of the most interesting yachts launched in many years. Mr. Kettering is president of Research Laboratories, General Motors Corporation, and, as might be expected, his yacht is practically a floating laboratory. Olive K is powered with two 500 h.p. Winton Diesels and her engine room is the most completely equipped of any yacht afloat, including numerous special devices developed by Mr. Kettering for the mechanical operation and control of the ship and its auxiliaries. Among them, and by far the most important, is an electrical synchronizing device which makes it possible to run both main engines at the same speed at all times, so that the two six-cylinder engines operate practically as a twelve-cylinder unit. This is one of Mr. Kettering's new engineering developments, the complete success of which has been demonstrated in extensive cruising.

Another noteworthy Winton Diesel yacht is Elda, 139 feet long, and owned by Arthur V. Davis. Mr. Davis' requirements called for a speed of 19 miles, with freedom from vibration and noise. It was originally planned to power the yacht with gasoline engines because it was thought that no Diesel engines would be sufficiently quiet and smooth; finally, however, it was decided to power the boat with a pair of the new high-speed V-type Winton Diesels. Thorough tests of this yacht at all speeds and engine revolutions have proved that Cox & Stevens, Inc., have designed an epoch-making boat in Elda. She runs very smoothly, makes her designed speed (in fact, ⅜ of a knot better) and is quieter and smoother at top speed than the ordinary Diesel yacht is at her moorings with only her electric plant running.

(*Continued on page* 92)

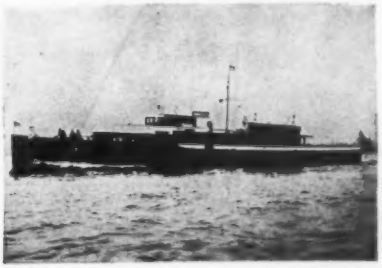
Advertising index will be found on 3rd last page



LUX protected Diesel yacht, "Lotusland."

Diesel yacht, "Migrant," LUX protected.

The "Avalanche," another Diesel yacht guarded from fire by LUX.



DIESEL YACHTS
Are Not Free From Fire

SOME LUX PROTECTED DIESEL YACHTS

NOURMAHAL
ALDER
LONE STAR
HAIDA
CRESSIDA
ALOHA
COLLEEN
ALPHA
MARY PINCHOT
HI-ESMARO
VAGABONDIA
MIGRANT
ETAK
LOTUSLAND
CORSAIR
BLACK DOUGLAS
GOODWILL
AVALANCHE
GALAXY
BIDOU
ACANIA
NEVADA
SHEILA
JANIDORE
ARA
NIRVANA IV

GASOLINE auxiliaries, hot water heaters, electrical equipment and gasoline carelessly used for cleaning parts have caused serious fires on Diesel yachts. As evidence of this ever-present fire hazard, LUX Systems have been called upon to extinguish raging blazes on four Diesel vessels. In each case, inability to cope with the fire would have endangered the lives of those on board, and on two of the boats the fire would undoubtedly have led to total destruction.

The investment in a Diesel yacht is usually greater than in other boats, as they are larger, and their equipment is far more expensive. For this reason, and to safeguard your guests and crew, fire protection should be carefully considered.

The principle of LUX operation is smothering the fire under a cloud of carbon dioxide gas, released from a cylinder by a remote control handle. The gas completely extinguishes the most raging blaze in less than 5 seconds—without any damaging after-effects.

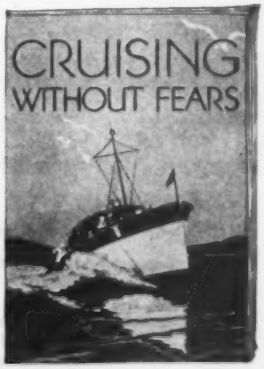
For any craft, from a Diesel yacht down to the smallest runabout, LUX has proved to be the best fire protection.

Walter Kidde & Company, Inc.
140 Cedar Street
New York

LUX
Fire Extinguishing System

LABELED BY UNDERWRITERS' LABORATORIES

"Cruising without Fears" describes the LUX System as used on all types of boats. The booklet will be sent on request.



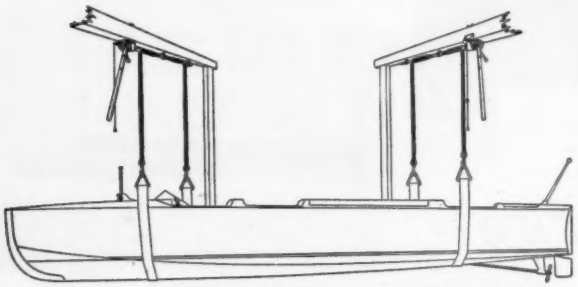
Keep Your Boat Out of the Water

Haul Out With the

SIMPLICITY BOAT HOIST

and MOORING SLING

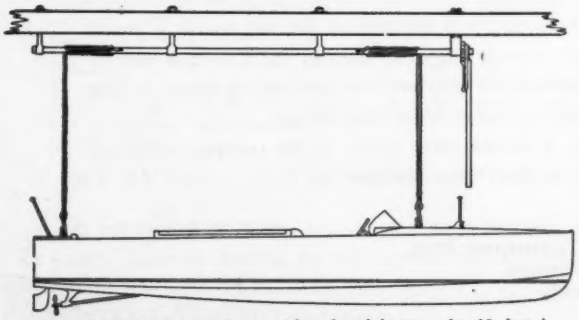
INSTALL the Simplicity Boat Hoist in your boat house now so you can use it this fall and next spring, and every day thereafter for years to come. It keeps your boat dry and free from marine growths and rot.



Double Hoist for boats of 18 feet or more. Lifting capacity 4,000 lbs. Price, standard type, $75.00. Slings and cables extra.

With the one-man operated Simplicity Boat Hoist and Mooring Sling you can raise your boat from the water in a few minutes. Simply drive your boat over the broad rubberized canvas slings—or if boat is equipped with eye bolts, attach cable hooks to same—give ratchet lever a few pushes and in less time than it takes to "tie up," boat is clear of the water, safe from banging and rubbing against dock or boathouse slip. Boat can be lifted within a few inches of supporting timber. When taking boat out at end of season, raise boat to desired height and then place timbers across slip for boat to rest on.

The Simplicity Boat Hoist and Mooring Sling costs less than any other make of boat hoist. No parts to wear out; once installed it requires no further attention. Saves you expense of hauling-out and putting overboard each year.



This model hoist for runabouts and outboard boats under 18 feet in length has a lifting capacity of 1,500 lbs. Price, standard type, $50. Cables and slings extra.

Lifting capacities of both single and double hoists can be doubled by use of single pulley blocks on each cable.

Write today for illustrated circular

JOHN W. LOOSCHEN

167 East 31st Street

PATERSON **NEW JERSEY**

IT'S THE BEST FRIEND A BOAT EVER HAD

GENERAL MOTORS ACQUIRES WINTON PLANT

(*Continued from page 90*)

The main engines are two high speed, airless injection, sixteen cylinder, V-type Winton Diesels, each developing 650 h.p. The V-type principle of construction, supplementing the advances which Winton has made in the method of fuel injection in airless injection Diesels, makes available a suitable power plant for the yachtsman who wants to add high speed to the other desirable features of his boat.

The builders of Elda, the Defoe Boat & Motor Works, have turned out a large number of exceptionally fine Winton powered yachts in the past year—at one time they had eight yachts under construction which were being powered with Winton engines. These were, Olive K and Elda, referred to above, and Lady Jean II, for C. E. Dawson; Saramar III, 152 feet long, for Charles T. Fisher; Sheila, 118 feet long, for George W. Loft; Janidore, 143 feet long, for I. Zellerbach; Thalia, 160 feet long, for Thomas Howell; Cormar, 75 feet, for R. E. Klages.

The New York Yacht, Launch & Engine Company has designed and built a number of interesting new Winton powered yachts around 75 to 100 feet in length, among them being Lamora, 93 feet, 3 inches long, for H. L. Gary; Sunshine III, 100 feet long, for Harvey W. Harper; Delilah, 104 feet long, for Joel S. Coffin; and Junaluska, 90 feet long, for George C. Heck. The Mathis Yacht Building Company has launched many new cruising house boats and yachts, Winton powered, such as the 106 foot Diesel house boat Mono, for G. K. Morrow; Memory, for Frederick E. Kingston; Arminia, 110 feet, 6 inches long, for Gen. W. W. Atterbury; Truant, 120 feet long, for Truman H. Newberry; and many others.

Picking a few of the other recent Winton powered yachts at random, we find the 60 foot yacht, Sea Miss, designed and built by the Dawn Boat Corporation for L. Howland Brown, which, with her two Winton gasoline engines, clips off twenty miles an hour; Edris, a smart 75 footer, designed and built by Marine Construction Company, for Commodore Ernest du Pont of The Corinthian Yacht Club, Philadelphia; Elveeay, 80 feet long, an unusual Diesel yacht with Coast Guard hull design, built by Chance for L. V. Aronson; Analgra, a 120 footer, designed and built by Nevins for L. E. Pierson; Koranette, 105 feet, 6 inches long, designed and built by Luders for F. B. Hower; Jem, which will do 28 miles per hour when her two Winton gasoline engines are turning 1,300 r.p.m., built by Consolidated for Jeremiah Milbank, who also owns the Mathis-built Winton-powered house boat Saunterer; Gadfly II, an exceptionally fine 125-foot yacht, built by Lawley for Frederic H. Rawson; and a handsome cruiser, 95 feet, 8 inches long, designed by Cox & Stevens, Inc., for Lucien H. Tyng.

Then, of course, there is the Robador, the third boat of the same name, owned by Commodore Robert Law of the Indian Harbor Yacht Club. She is a beautiful stream-line cruiser, presenting a powerful speedy look that does not belie her ability to do 23 miles per hour with her two 700 h.p. twelve-cylinder V-type Winton gasoline engines. She is the largest yacht afloat with a semi-V bottom—105 feet long. She combines the two essentials of speed and comfort to a marked degree, and is in every detail a credit to her designers and builders, the Luders Marine Construction Company.

Another new Winton powered yacht, strikingly original in design and appearance, is Anson W. Hard's Avalanche, original features being the streamline appearance, partially sunken deck house and sun deck, and a long after deck. Avalanche is 154 feet, 6 inches long, overall, and was built by Consolidated.

In addition to the many yacht installations mentioned above, the range of Winton Diesel engines includes model for tankers, towboats, dredges and freight boats of all types, and auxiliary equipment, such as generators, pumps and compressors. Winton has powered a large number of work boats of various types, including ferry boats, lighters, tankers, fishing boats, Coast Guard patrol and other government boats.

Winton Diesel and gasoline engines are also built in a wide range of sizes for many different kinds of industrial service, such as rail cars, pipe line pumps, Diesel electric shovels, bridge power plants and other stationary service. One of the most important outlets for Winton products of this class is the rail car equipment which the Electro-Motive Company of Cleveland, Ohio, furnishes for the railroads. The first Winton-powered unit of this kind was placed in service several years ago. Since then, passenger and express cars powered with Winton Gasoline Engines have been accepted by a large number of the leading railroad companies of the United States as a thoroughly practical and dependable type of motive power. Forty-two railroads in this country, Canada, Mexico and Australia are now using 456 Winton-powered cars of this type.

Advertising index will be found on 3rd last page

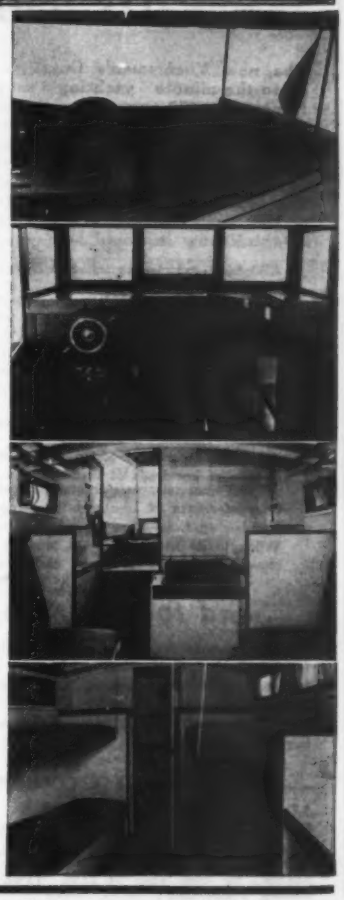
THERE'S AN EXTRA MEASURE OF COMFORT IN THE CRUISABOUTS

Step aboard a Cruisabout and you'll find full headroom; long, wide, soft, spring upholstered berths; a toilet room with every convenience; storage space galore, a well appointed, convenient galley; a large cockpit protected by canopy and windshield, and many other appointments that add to Cruisabout comfort.

But there is an extra measure of comfort in a Cruisabout that is hard to find in most boats of this size and type. This is the smooth, easy motion, and the absence of thumping, slapping and yawing in a seaway. This extra measure of comfort in a Cruisabout results from an expertly designed, ruggedly and carefully built, correctly balanced round bottom hull powered with dependable, smooth running motor.

See the Cruisabouts at the dealer nearest you and you'll revel at the many features found in these low priced, high quality yachts.

Booklet "E" illustrating and describing the Cruisabouts may be had free for the asking. Send for your copy.



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The new Yachtsman's Guide is the only complete, up-to-the-minute yachting encyclopedia published. It contains 500 pages crowded with just the sort of practical information every motor-boat man wants. A copy of this invaluable volume should be aboard every boat and in the library of every yachtsman's home—on hand for immediate reference at all times. The following list gives you merely a partial glimpse of the wealth of material this book contains. Read it—think how it would help you!

- All about engines—installation, ignition, vaporization and operation.
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- More than 100 Motor Boatmen's Charts for the entire Atlantic Coast, Great Lakes and Canada.
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- Details of hundreds of cruise routes, description of ports and channels, marine signals, codes, flags, etc.
- Characteristics of lights, buoys, fog signals, etc.
- Numbering Law—How to obtain numbers for your boat.
- What to do in a storm—to prevent collisions.
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I desire to take advantage of your Special Offer and get a copy of "The Yachtsman's Guide" with my subscription to MoToR BoatinG for One Year at $3.50. (Two years' subscription including Yachtsman's Guide, $5.00.)

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TURNOVER, A 17-FOOT BOAT

(*Continued from page 49*)

some form of power is often much desired. The smallest of the outboards will be ample for this purpose. There is a lot of room up under the forward deck and it is here that the motor can be tucked out of the way while not in use.

The rudder will be hung on the stern and can be readily gotten off when it is desired to move along under power.

The mast will be made from spruce and will be 3 inches in diameter from the step to the gaff jaws, from which point it tapers in a fair curve to 1½ inches at the top. The height from the sheer line to the top is 17 feet 2 inches, and the depth below the deck, called the bury, is 1 foot 6 inches, making the total length 18 feet 8 inches. Spruce known as Sitka or airplane is the best to use for spars, this being perfectly clear from knots and both strong and light. The boom and gaff will be made from the same kind of lumber. The gaff will be 9 feet 6 inches long and 2⅛ inches diameter, tapering each end to slightly less than 2 inches diameter. The boom also will be made from airplane spruce, this being 10 feet 10 inches long and 2⅛ inches diameter. Both gaff and boom are fitted with jaws; these to be made from oak or hackmatack. Drawings of these next month. Wooden mast hoops will be used. These must be about 4 inches in diameter on the inside; five hoops will be enough.

The sail will be made from 4 oz. duck. No use to make this of poor quality material. The cloths must run across the sail. I should not advise making the sail; better to have it made by a sailmaker. It is a difficult thing to cut and sew sails in a way that they will fit and set correctly. And unless the set is good the boat cannot sail well. Good sails are as important to a a boat, as good motors. In fact, the difference between a fast sailing and slow sailing boat is usually because the one has beautifully fitting sails and the other ill fitting ones.

You will notice that in the drawing of the lines that the stations forward and aft are spaced at 17 inches centers while those along in the middle parts of the craft are spaced at 34 inches centers. The reason for this is that in bending the planking the ends are likely to straighten out which gives a very bad deck line. In making the building forms I strongly advise making one for each of the seven stations shown, skipping none and adding none. The stern will of course be extra. The lines as drawn are to the outside of the planking, and so the thickness of the bottom planking must be taken off the bottom; this will be 9-16 inch. The side planking will be ½ inch thick and so this will be taken from the sides of the moulds. The deck will be ¼ inch thick and this must be taken off, too.

The forms will be made from any handy lumber that is about ¾ inch thick and approximately 6 inches wide. They will be very easy to make, simply a bottom member cut to the proper width for the particular station for which it is intended, and to the proper height and width on deck. It will be necessary to cut notches in the forms to take the chine pieces, the keelson, the inwales, and the sister keelsons. The dimensions of these follow: chine pieces ⅞ by 2 inches; keelson ¾ by 6 inches; sister keelsons ¾ by 2 inches; and inwales ½ by 2 inches.

The stem and stern board must be made before the forms can be set up. The former will be made from 2-inch white oak and will be moulded as shown in the construction plan, that is 2½ inches at the deck and 3 inches at the bottom. Reference to several of my previous articles in MoToR BoatinG will give directions for getting out the stem and cutting the rabbet therein; the July issue, I believe, is the one carrying this information.

By all means build Turnover bottom side up setting the forms on the floor or on stocks if the building floor is earth or concrete. You must exercise the greatest care in placing the forms, being sure that these are set at the correct distance from each other and perfectly plumb and square with the center line of the boat. Check over the spacing several times before making the forms fast for the last time. The only way in which to have both sides of the boat alike is to give plenty of time to preparatory work like this. In setting up the stem make doubly sure that it is set at the correct rake and that it is perfectly plumb in athwartship position.

With the forms, the stem and the stern board in position apply the two chine pieces. These will be made from ⅞ by 2 inch white oak and, needless to say, must be in single lengths. At the bow and stern ends it may be well to taper the chine pieces so as to allow these to make easier bends; tapering both the thickness and the width. The chine pieces will be fastened into the forms with screws, these being driven in so as to be easily removed before the lower strake of planking is applied. Of course at the stem and stern board the fastenings

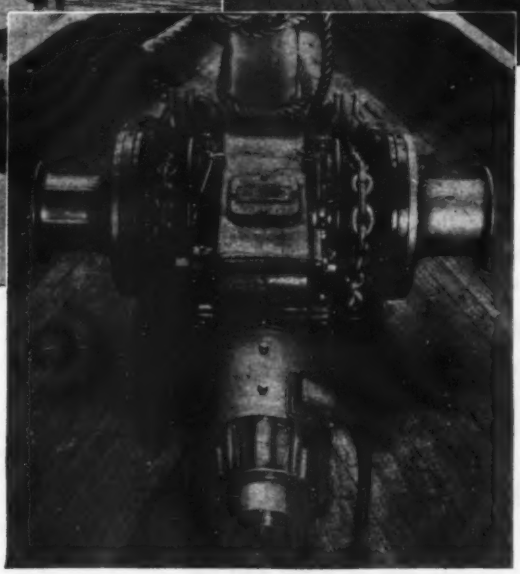
(*Continued on page 96*)

Advertising index will be found on 3rd last page

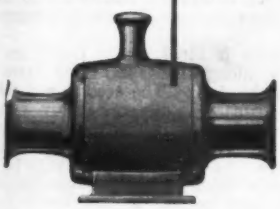
A-E-CO

Above—A-E-CO Electric Windlass for large yachts

At Left—A-E-CO Electric Windlass, Type "T"



Above—A-E-CO Electric Windlass, Type "G"



Below—A-E-CO Hand Windlass, Type "J"

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Taylor Stokers
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There's Style in an A-E-CO Windlass

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Rugged strength, correct design, reliability to meet any emergency . . . all these you expect from a windlass. You get more than these essentials when you equip your yacht with an A-E-CO machine. The pictures show how good looking all A-E-CO windlasses are. From the husky machine for yachts that vie in size with ocean liners, down to the smallest hand-operated model, every A-E-CO windlass is designed with the graceful curves and harmonious proportions that appeal to an artist's eye.

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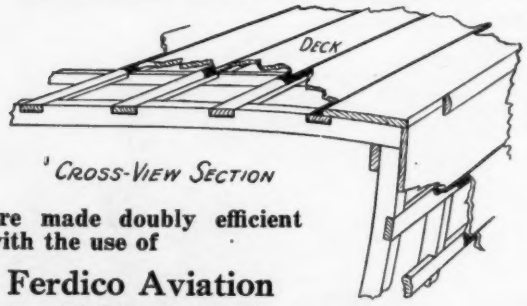
AMERICAN ENGINEERING

AMERICAN ENGINEERING COMPANY, 2419 ARAMINGO AVENUE, PHILADELPHIA

batten Seams



CROSS-VIEW SECTION

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Tenacious—Durable—Resilient—Preservative

When putting boat frames together coat battens liberally with FERDICO Aviation Glue. It not only is a waterstop but acts as a preservative if used on all rabbets and mortised joints, such as chine logs, bilge stringers, battens, tenons and double planking. It never dries out.

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This chain type bulkhead steerer is entirely of brass with polished brass wheel. Shaft and keyway are long enough to allow for ordinary thickness of bulkhead.

Three sizes, $20 to $34

The Sea-More portlight assures the maximum amount of light and vision. The glass is the full diameter of the spigot or tube. In plain or polished brass.

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TOPPING BROS.

159 VARICK STREET NEW YORK CITY

TURNOVER, A 17-FOOT BOAT

(*Continued from page 94*)

will be permanent. Therefore use brass or galvanized screws if the boat is to be used in salt water. Fresh water sailors have a great many advantages over folks on salt in the matter of rusting out of iron work. And it seems to be such an easy matter to be able to tie up to a float or dock without consideration of tides.

The stern board will be made from white oak ⅝ inches thick. This must be framed around with ⅝ by 2 inch white oak, fastenings to be brass or galvanized screws. Always in fitting framing like this paint well on the faces that come together; these, by the way, are called faying surfaces. Notches for the chine pieces, the keelson, the sister keelsons and the inwales will be into the stern framing only and not right through the stern board as well.

The keelson will be next. This will be a piece of white oak in a single length 6 inches wide and ¾ inches thick. It must be let into the heel of the stem, and fastened there. Fasten into the notches in the forms with screws in the same manner as the chine pieces. The keelson and the chine pieces must sweep along in a fair curve from stem to stern. Use a long straight edge reaching across the bottom and fair up with this.

Now put in the sister keelsons, letting the ends of these into the chine pieces and the stern framing. These will be made from ¾ by 2-inch white oak.

The side planking will be the next part of the construction to tackle. The lower strake will be fitted and fastened first; this being the one along the chine piece. All the side planking will be made from ½-inch white cedar and there will be three planks or strakes each side. At each end the top edge of the chine plank will be rabbeted for a length of about two feet beginning at the full thickness and tapering down to half the thickness of the plank. The purpose of this rabbet is to allow the surface to come flush at the stem and stern. Use a few screws to hold the plank against the forms; these, however, will have to be removed when the forms are taken out. The thing to do is to arrange these temporary fastenings so that the holes will be used again when the side frames are fastened in place.

Before the rest of the planking is fitted run in the ½ by 2-inch inwales; these will run along the sheer and form a doubling into which to fasten the deck. The second and third side planks will be laid and fastened in the same way as the plank along the chine. I would next fasten the planks together using copper boat nails riveted over burrs. These should be set on 5-inch centers.

The side frames will be made from ⅝ by 2-inch white oak and will will be set on the same centers as the forms. In fitting these remove one form at a time, being sure to fit in a brace or two to keep the sides from changing shape. Nine long screws should be used for fastening the frames to the planking. Note that the frames taper from the bottom up and are fitted close to the inside of the planks and over the laps in the planks.

In the second part of this story on Turnover I shall continue the details of the construction and cover briefly the principles of sailing. Look for this and the sketches showing further details.

For those who wish to build I suggest securing original blue prints drawn to a scale of 1 inch to the foot; these being obtainable at moderate cost by writing the Editor, MoToR BoatinG, 959 Eighth Avenue, New York, N. Y. A circular describing many useful books of designs and boat building information can also be had on request.

(*To be continued*)

A DISPLAY THAT SELLS

Evidence of the way in which the outboard industry is developing is indicated by the purchase of a new Reo truck, just secured and outfitted by the Southeastern Marine Supply Company, distributors for Elto motors in Macon, Georgia.

H. A. Wright, president, considers this an excellent investment because of the fact that the truck carries a full line of display models thereby enabling the salesmen calling on the dealer to show every unit in the line, making it unnecessary to rely upon catalogs or pictures.

This is very important with an article like an outboard motor because the man buying one likes to see exactly what he is investing his money in. Nothing does so well in selling as the actual product itself.

Mr. Wright has had a most successful year in distributing motors and with greater business in prospect has decided to make this considerable investment. There is very little doubt but that it will pay him well in returns in the months ahead.

AT THE RACES, at Newport or cruising in southern waters . . . you will find Cooper-Bessemer Diesel powered yachts distinguished among watercraft for their smoothness and freedom from vibration. ▲▲ These luxurious vessels typify the ultimate in comfort afloat. The engines which largely contribute to this comfort have won the favor of designers, owners and builders alike. That is the reason you will find Cooper-Bessemers powering many of America's finest yachts. ▲▲ Among the more recent additions to this group is Mr. Logan G. Thompson's "Sylvia", 190' in length, 26' beam and 10' draft. Designed by Henry J. Gielow, Inc., built by Bath Iron Works and powered with a pair of 8 Cylinder 420 H. P. Cooper-Bessemer Diesel main engines (and two 50 K. W. Generating Sets), the "Sylvia" has a cruising speed of 14 knots.

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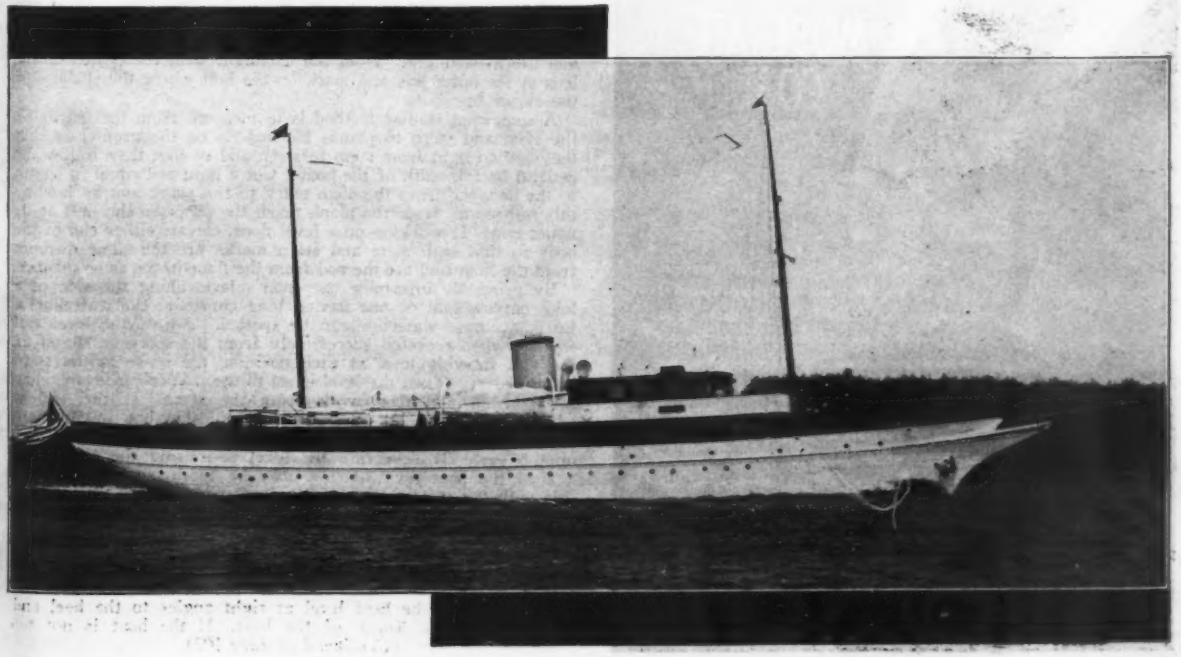

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Atlas
Dealers write for special dealer proposition
ATLAS BOAT CORPORATION, MENOMINEE, MICHIGAN

A NEAT WATERLINE

(*Continued from page* 50)

location is known in relation to the old one the location of which is shown by scores or other marks, the desired distance can generally be laid off with dividers from the old marks. Where the old waterline is not true raise the marks on the stem and stern and proceed as will be explained in the following paragraphs.

Before attempting to strike or mark out the waterline the boat must be blocked up so that the stem and stern are plumb. Elevation of the stem or stern is of little account. Plumb the stem and stern with a plumb bob by hanging it down the center and sighting to the stem where it cuts under. Do not use a spirit level against the side of the stem or think that you can hold it at the center of the stem. If the boat has not been properly faired when built or has warped out of true the stem and stern can not be made to plumb. Usually, the stem should be favored and you will have to give and take a little according to how the boat rests in the water.

After the boat is plumbed, set up a long straight edge at the stem at the desired height and carefully level the straight edge. The straight edge must be accurately leveled and kept so throughout the whole job. Stakes may be driven into the ground or tacked to the blocking and the straight edge clamped to the stakes, which allows easy adjustment. Level a similar straight edge at the stern and check the leveling before laying out on the sides of the boat.

With the help of the crew, stretch a chalk line taut over the upper edges of the leveled boards, allowing the line to just touch the hull. If you must work alone, drive nails to fasten one end of the line and hang a weight on the free end of the line to keep it taut. By moving the ends of the line along the straight edges the line may be made to touch the hull in a straight line along the side of the boat. Beginning at either end, manipulate the line so that it touches the boat about two feet from the end and start a brad at the under side of the line where it touches the hull and continue moving the line until brads are placed about two feet apart all along the side. Where the hull curves under, care is necessary to prevent the line from slipping down along the side. This method requires some space alongside the boat. but there is nothing difficult or hard to understand about the whole job and if the line is kept taut the result will be as accurate as is possible by any other method. It has been suggested that the line be chalked and by sawing the line back and forth over the level boards make a chalk mark on the side of the boat. Chalking the line is no easier and the chalk is easily rubbed off and the line lost if not made permanent with brads. Careful leveling from a taut line over the level boards to the hull will produce good results if the leveling is carefully done. Rest the level against the hull and support the line end with a light batten held to the side of the level with the hand.

With the same straight edge setting, stretch two chalk lines on a side and quite a distance apart. If you are good at sighting, the waterline can be spotted and faired up with a batten in a satisfactory manner by sighting across the two lines. Have one of the crew move a pencil up or down and when right mark the spot with a brad. If sighting is not practical, wait until dark and use a flashlight. Hold the flashlight with the center of the lens at the outer line and mark on the hull where the shadow of the closer line falls.

A somewhat similar method is to measure from the marks on the stem and stern to planks blocked up on the ground so that they are straight from stem to stern and so that they follow the general half breadth of the boat. Cut a light rod equal in length to the distance from the stem mark to the plank and by holding this rod plumb from the plank mark the spots on the hull at its upper end. If working on a level floor, elevate either end of the boat so that both stem and stern marks are the same distance from the floor and use the rod from the floor in the same manner.

By using an adjustable carpenter's level along the side of a long narrow hull or one having long curves at the waterline, a fairly accurate waterline can be spotted. Adjust the level vial so that when repeated successively from the score on the stem, the vial showing level at each position, the score at the stern is arrived at. Then the level is set to use. Work from the stem to amidship and then work from the stern. If the vial is adjusted just right, the lines will meet amidship, but usually there will be a small variation which must be faired off with a batten or the eye. By reversing the level and using the other side against the boat the waterline may be spotted on the opposite side with the same setting of the level vial. While this method will require fairing there are no level boards, stakes or lines used and it is applicable in close quarters.

A surveyor's level or transit can be set up so that the sight line cuts the scores on the stem and stern. It is then an easy matter to sight as many spots on the hull as desired. The instrument must be kept level at right angles to the keel and inclined with the length of the boat. If the boat is not too

(*Continued on page* 102)

Advertising index will be found on 3rd last page

The EVERDUR fastened motor sailer Moonbeam, *designed by Mr. Hand for Dr. Lester D. Wise. EVERDUR castings were used for all underwater parts.*

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Gentlemen:

To provide a strong, durable, non-corrosive fastening, EVERDUR bronze screws of a special thread cut were used in building "Moonbeam", whose hull was sheathed with copper for use in southern waters. These fastenings were selected after a series of experiments indicated that EVERDUR screws are the best non-ferrous metal fastenings yet developed.

It may interest you to learn that I am also using EVERDUR fastenings on a larger boat now building for Mr. A. J. Drexel Paul for use in southern waters.

Yours very truly

William H. Hand Jr.

W. H. Hand, Jr. recommends EVERDUR Fastenings

WILLIAM H. HAND, Jr., prominent naval architect, considers screws made of EVERDUR the best fastenings yet developed. Like Mr. Hand, many of the foremost naval architects and builders have adopted EVERDUR screws and bolts for fastenings of assured dependability.

It will be to your advantage to make sure that your next boat is fastened with EVERDUR (Reg. U. S. Pat. Off.), an Anaconda alloy combining the strength of steel with unusually high resistance to corrosion.

TOBIN BRONZE (Registered U. S. Pat. Off.)—made solely by The American Brass Company —has been standard for propeller shafting and underwater parts since its introduction in 1885.

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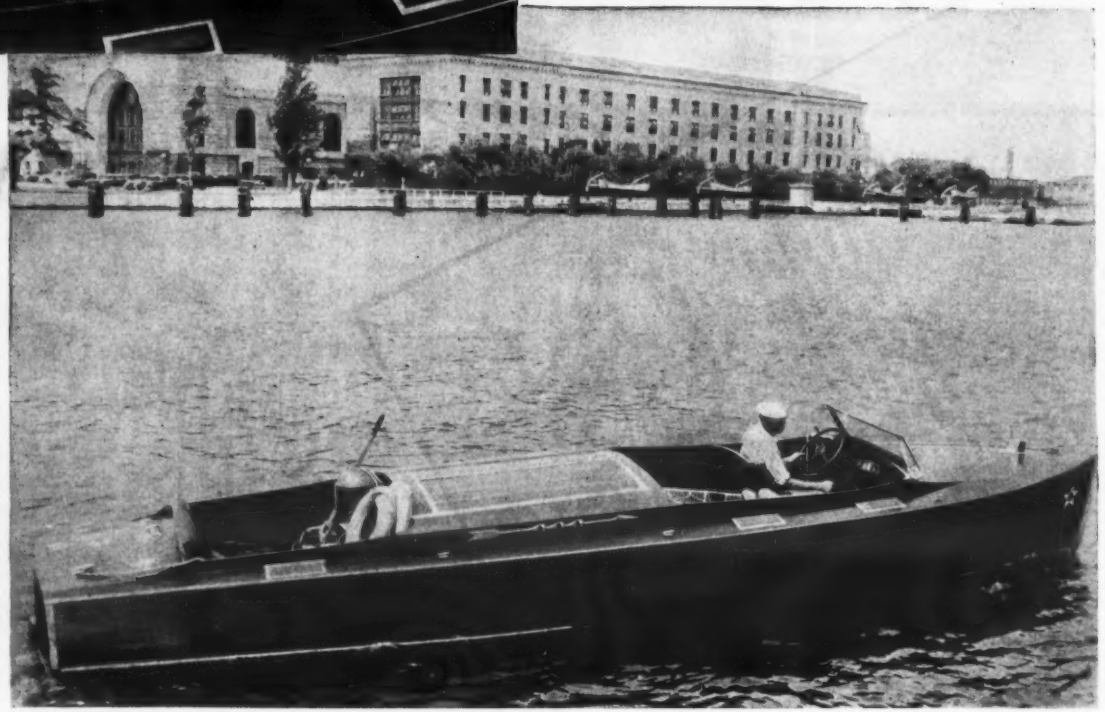
Dependability ▲▲
Conclusively Proven

United States Navy selects Dart Boats



Dart Boats have been chosen by the United States Naval Air Service as "crash" boats . . . stock 26-foot models except that the front seat has been cut away to accommodate a stretcher.

Should a plane crash at sea, it is the duty of these boats to be at the scene of the accident **instantly.** There can be no delay. There can be no uncertainty. Perhaps a life is at stake. Speed, seaworthiness and reliance are imperative.

Dart Boats met the most searching investigations and exacting tests of the Naval Department. Could there be higher proof of dependability?

Four models, 30-foot, 26-foot, 22½-foot and the sensational new 18½-foot Runabout.

Write for interesting descriptive
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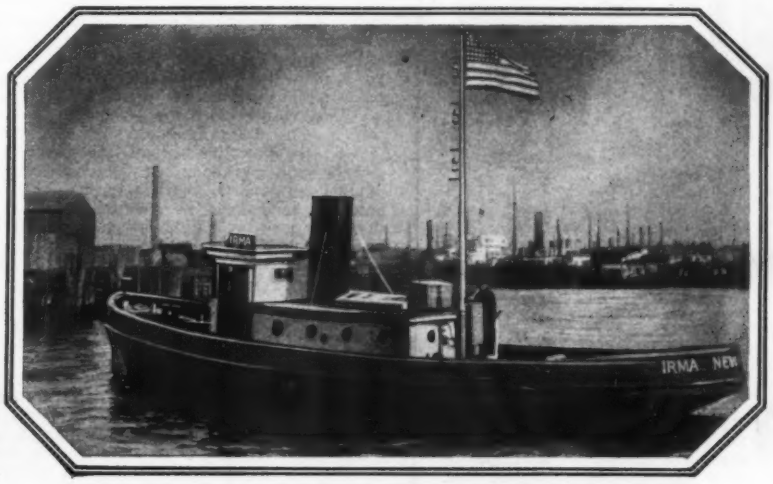
Monel Metal Shafts *in Diesel tug boat Service*



57 ft. steel tug "Irma", powered with 120 H. P. Fairbanks-Morse Diesel motor and 4" diameter Monel Metal shaft. Built for The Atlantic, Gulf and Pacific Co., by SPEDDEN SHIPBUILDING CO., *Baltimore, from plans by* J. MURRAY WATTS *of Philadelphia.*

Pleasure Boat owners can profit by the experience of tug boat operators...

THERE are few harder tests of propeller shaft material than tug boat service. The daily grind of pushing and pulling heavy loads throws terrific strains on engine, bearings and shaft. And there is the ever-present exposure to the corrosive attacks of salt water and danger from impacts with driftwood.

Because every day in drydock is dead loss, both owners and builders are relying more and more on Monel Metal shafts to insure dependable, low cost performance. Their preference is reflected in the following statement of J. Murray Watts, prominent naval architect of Philadelphia: "We have been specifying Monel Metal shafts on a large number of yachts and commercial vessels built from our designs. On commercial boats, the latest job was a 4" diameter Monel Metal shaft on the steel Diesel tug boat 'Irma'. We have had good results with Monel Metal and will continue to specify it."

Your first Monel Metal shaft will confirm the superiority of this modern Nickel alloy. It will take on a mirror-smooth polish which will reduce bearing wear. Monel Metal shafts practically eliminate the vibration and whip common to shafts of other materials. They will not rust or pit and are highly resistant to corrosion. Strong as steel, with a flawless rolled structure, Monel Metal shafts withstand sudden shocks and hard impacts and give years of repair-free service.

Monel Metal shafts are now standard on leading makes of commercial and pleasure boats. They are also readily obtainable from stock.

The same properties that make Monel Metal so valuable for propeller shafts also make it the ideal metal for many other marine parts and fittings. Monel Metal is available in the following shapes and forms: sheets, tubing, strip, wire rope, wood screws, nails, rivets, bolts and nuts, lag screws, etc. Have your next boat put together with Monel Metal wood screws.

For detailed information about Monel Metal in any form, write The International Nickel Co., Inc.

MONEL METAL

Monel Metal is a registered trade mark applied to a technically controlled nickel-copper alloy of high nickel content. Monel Metal is mined, smelted, refined, rolled and marketed solely by International Nickel.

Monel Metal shafts increase the life of babbitt or bearing bronze and are especially recommended with Goodrich Cutless rubber bearings.

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Fig. 809 Fig. 803 Fig. 800

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Have you seen the Navigator or Mariner's Guide? Write us how to get a copy of this handbook.

NEW JERSEY PAINT WORKS
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Wayne & Fremont Streets
JERSEY CITY, N. J.

A NEAT WATERLINE

(*Continued from page* 98)

heavy to level, set up the transit or level for levelling and with a marked stick for a target elevate either end of the boat to level with the instrument. The elevation of the instrument is immaterial. Hold the end of the stick at the stem score and mark at the spot sighted through the instrument and by placing the stick in a relative position from the stern score, block the boat until the same mark is sighted. It is then only a matter of swinging the level to get as many spots as desired. If you are used to the level, you only need the suggestion and probably know more about its use than I do. If inexperienced, you can get good results with the level just the same by blocking the boat level to the score marks.

After the waterline is spotted by any of the methods described and the spots marked either with chalk or brads it must be faired up and permanently marked on the hull so that in succeeding paintings it will not be covered up. To fair the line between the spots tack on a light batten about ¼ by 1½ inches so that it touches the under side of the brads. If brads were not used for spotting place brads to fair to. A thin batten sprung flat will strike a fairer line than a square or narrow strip or the same batten spung on edge. Very likely one or two spots will need to be changed in order to strike a fair line. When standing off amidship and looking at the waterline, it should appear as a straight line fore and aft.

After the batten is faired, tack it fast and remove the brads used for spotting. With a narrow race knife or the sharpened tang of a file score in the line to a depth of from 1/32 to 1/16 inch deep. If a real nice score is desired, regrind the cutter and shape the body of an old style wooden bead plane to cut a V groove and screw strips to the side to gauge the depth of the cut. Mark the waterline at the desired height and place the batten so that when the plane is held against its upper edge, the point of the cutter will be at the desired height. By following the plane along the edge of the batten an even, fair score will be made with no danger of running off and marring the surface. Scoring the waterline the full length of the boat gives a line easy to paint along and one which can not be covered over by many paintings.

W. B. M., Newburgh, N. Y.

HELPING THE PAINTER

THE water line was indicated on the plans of the first boat that I built but like practically every amateur who builds a boat I changed a few things. The bottom paint was run up to the indicated position for the water line and when the boat was launched this line was not correct. However, it was late in the season and as there might be some changes still to be made after trials, I decided to let this line stay until the next year.

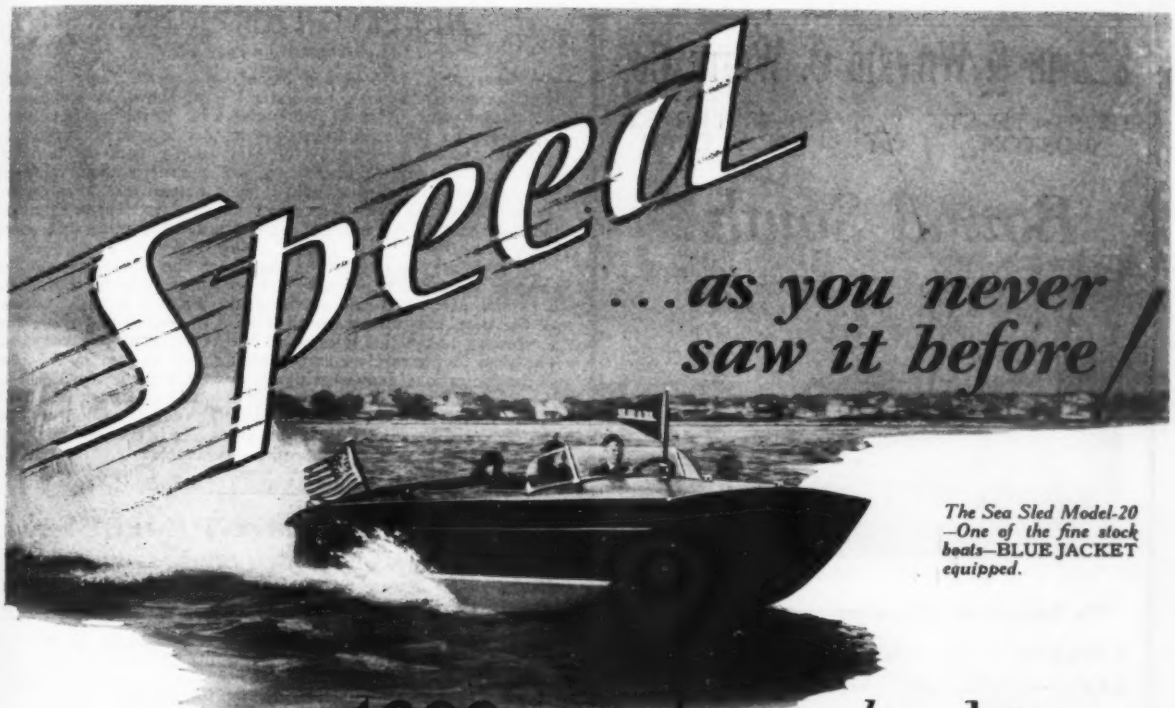
The sides were painted with white enamel and this had been put on first and extended down below the water line then the bottom paint run up to the indicated line over this white but this portion of the bottom paint peeled off. That particular bottom paint should have been applied to the bare wood. This pointer may help save a similar mistake for someone. Furthermore the water in which this boat was moored was dirty and a mark was formed on the hull that did not look so well and was hard to remove so it was decided to raise the water line, or rather the line of the bottom paint, about 3 inches above the water.

The boat was moored in shallow, quiet water and getting out into the water it was easy to mark the actual location of the water line on the hull with a black crayon. This was just before the boat was hauled out for the season. In cleaning off the hull care was taken to preserve this marking.

In the spring when the boat was ready for painting, a straight board, 1 by 4 inches and 12 feet long was nailed to the transom stern so that it projected an equal amount each side of the boat, and with the top edge 3 inches above the water line marked on the boat. At the stem a similar strip was supported by braces, with the top edge also 3 inches above the mark on the hull. This latter strip was sighted up with the aft strip and made level with it. It was an easy matter then to use a chalk line stretched across the top edge of these strips and touching the hull at one point and snapping the line on the hull. By moving the line back and forth along the strips the entire curvature of the hull could be easily marked.

The bottom paint was run up to this line and the boat put overboard and run for that season without indenting the mark into the wood. The next season, after seeing that this line was correct, it was scribed along the hull to form a permanent mark for future painting. (At the same time the name on the transom was also scribed to preserve the letters and make re-lettering easy.)

(*Continued from page* 104)



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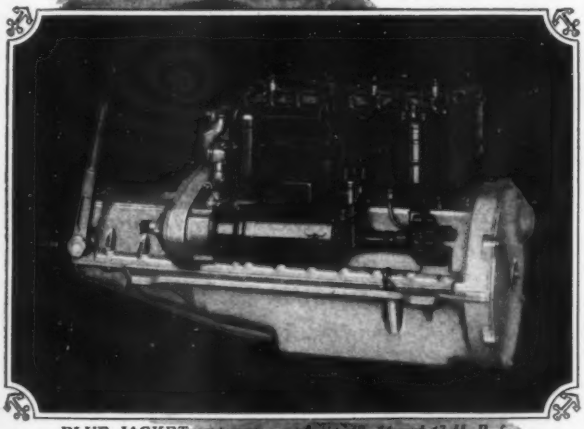

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For water craft in the "Rolls-Royce" class the BLUE JACKET is the unanimous choice, but, moderately priced boats everywhere, are also being BLUE JACKET equipped for better performance and the utmost in owner satisfaction.

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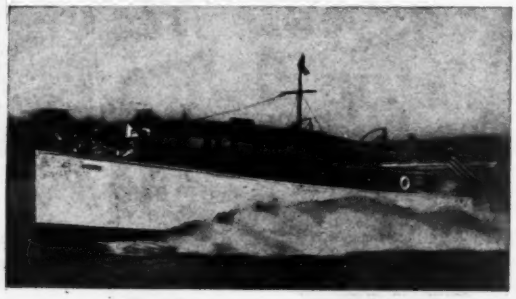

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HELPING THE PAINTER

(Continued from page 102)

A light strip, 5/16 by 1¼ inches, was nailed along the hull with the bottom edge on the water line as shown by the top of the bottom paint. A small plane with a bit ⅛ inch wide, similar to those used for making grooves in tongue and groove work, was run around the edge of this strip and a mark cut into the planking about 3/32 inches deep. The battens were removed and the nail holes used to hold it were puttied up. This groove was given several coats of paint on the new wood before putting the final coat on the bottom. It has lasted for years and saves much time.

To calculate the position of the water line is possible but the amateur builder will probably get no where with these calculations and after all is said and done, the amateur is with his boat all the time and can wait until it is in the water and make any corrections to the line guessed at before the boat was launched. The time factor rarely counts with him but it does in the case of the professional builder with whom we are not concerned here. It will be taking a chance to scribe a water line on a new boat before it is launched because it cannot be obliterated and will be confusing to the painter in future years. It is best to wait until the inevitable changing is more or less completed.

L. R. K., Philadelphia, Pa.

CORRECT ALIGNMENT IMPORTANT

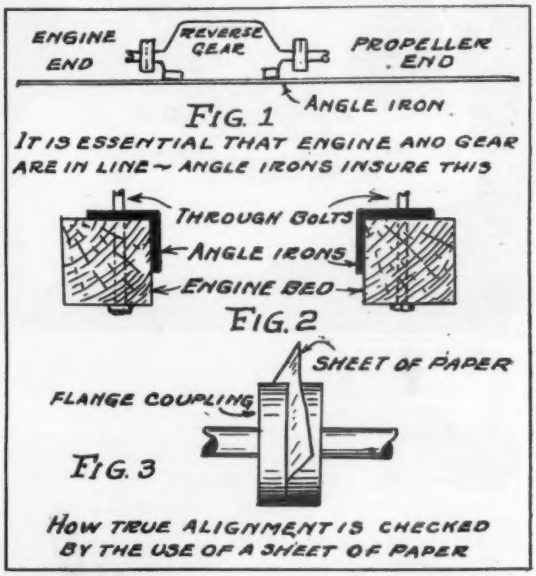
(Continued from page 52)

thing up as if it were final, then disconnect the forward flange, take out the bolts and insert a piece of ordinary note paper as shown in Fig. 3.

Turn over the motor several times. If the sheet of paper is not thrown out of the coupling, one can be reasonably sure that the alignment is all that can be desired. Connect up the forward flange and proceed similarly with the after flange.

If the paper perchance is thrown out, brass shims should be placed under the engine flanges or under those of the reverse gear until correct alignment is obtained.

Reverse gears need attention. Oil of the correct viscosity should be used in them and replenished when necessary. The practice of easing the reverse gear in order to get a slight movement of the hull is injurious to the gear. Have the gear fully engaged for forward or backward motion or in neutral and allow the flexibility of the motor and the skill of the skipper to get the easy hull movements desired.



J. E. M. employs steel angle irons to insure correct alignment of the reverse gear

By all means get a reverse gear large enough. One a size larger than necessary will be more satisfactory than one a size too small. A reverse gear taxed to the utmost has a short life. Treat a reverse gear as an important piece of a boat's equipment and there will be no regrets.

J. E. M., Norwich, Conn.

Advertising index will be found on 3rd last page

MODERN LIGHTING FOR MODERN YACHTS

THE modern yachtsman is not content with the makeshift lighting that characterized boats of former days ◆ He wants electric lights throughout, and wants to be able to make liberal use of his electricity ◆ To do this he must have a lighting plant that will keep his batteries charged at all times, irrespective of the amount of time the main engine is run ◆ The Branford Midget Lighting Plant is designed for installation in sail boats and power boats where it is desired to have the advantages of a separate lighting plant without adding too much weight, or sacrificing too much space ◆ It weighs less than fifty pounds, and occupies a space thirteen inches by twenty inches by thirteen inches high ◆ The plant is furnished in either six or twelve volts, at 140 or 145 dollars ◆ ◆ ◆

THE E. J. WILLIS CO.

85 CHAMBERS STREET NEW YORK

A Product of THE MALLEABLE IRON FITTINGS CO., Branford, Conn.

Important Announcement Coming Soon

Watch for our announcement of new models—new conveniences—new plants.

Due to the unusual demand the quality speed and price of these trim cabin cruisers has aroused, our entire production for this year is sold out. But we have important news for 1931 coming soon.

Owens Boat Co.
Annapolis Maryland

This illustration shows the latest incandescent searchlight adapted for use on any size boat, on ocean or river. Also a full line of red and green running lights for small boats.

Catalog I incandescent
Catalog A arc

THE CARLISLE & FINCH CO.
261 East Clifton Ave. Cincinnati, Ohio

THE WANDERER—OF LIVERPOOL

(Continued from page 56)

In the Delaware River the Wanderer met with another mishap. Afetr discharging her ballast at the Port Richmond Coal Piers, the ship had to be shifted to Point Breeze to load case oil. About 4.30 p.m. on Friday, the 14th July, she was taken in tow by two tugs, the Samuel McAulley and Eva McAulley, one alongside, one ahead. There was a strong ebb tide and a stiff north-easterly breeze blowing. As the Wanderer was more than half-empty and likely to be a difficult tow Captain Brander asked the tug captain if his tugs would hold her. "Hold her?" the captain said, "Yes, they'll hold creation." The Wanderer was given extra stability, in the American fashion, by lashing old wooden lower-masts alongside her, on both sides, at the water line. The tugs then proceeded with her into the Delaware.

As they got well under way, the tugs had to change course to avoid a ship backing out into the stream ahead of them. This brought the Wanderer's port broadside against the wind and tide; she instantly took a sheer, snapt her hawsers, and swept down stream, with one of the tugs alongside, into Pier No. 22, Willow Street Wharf. This pier was piled with empty casks. The Wanderer drove the tug into the pier, and scattered the pile of casks in all directions: the tug's crew jumped ashore as she struck. The Wanderer dragged past Pier 22, went on into Pier 23, struck it, and went past it towards the Vine Street Dock, where the ferry boat, Cooper's Point, was taking in passengers for Camden. Some men in the police tug, Stockley, then lying near the wharf, shouted to the passengers to jump clear. The passengers scrambled for the shore, but before many had landed the Wanderer's bows went into the Cooper's Point, cut through the strong plank fenders at her port side, holed her, smashed up her superstructure, cleared her upper deck, and squeezed her funnel out. Some people and horses were knocked down: two ladies and a man were slightly hurt. The Wanderer was checked by the collision, her stern swung round with the ebb, she took a sternboard and damaged her rudder, bending all the pintles and smashing a gudgeon. She was then brought up and taken to Point Breeze.

The Cooper's Point had to be docked. It cost seven thousand dollars to repair her and the damaged tug.

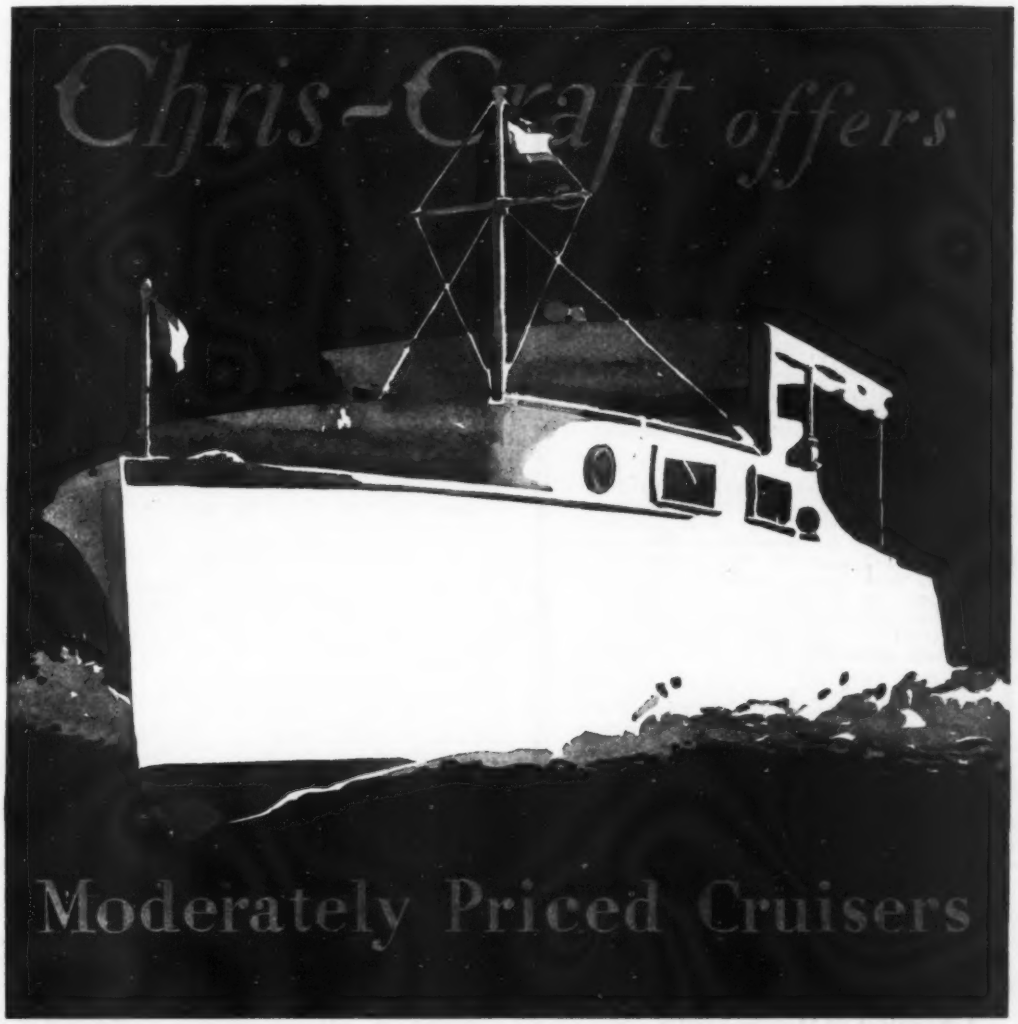
At Point Breeze, the Wanderer repaired her rudder, and took in 118,260 cases of oil. She sailed for Calcutta.

There had been two other big sailing-ships in Philadelphia at that time, the Glencaird, Captain English, 2,418 tons, and the Osborne, Captain Scott 2,986 tons, both four-masted British barques. These, and the Wanderer, were said to be the three biggest sailing-ships that had ever entered Philadelphia. As all three were loading for Calcutta, a journalist invented the story that they were going to race each other, from the Delaware Capes to the Bengal pilot, for a bag of five hundred gold dollars contributed by the three captains. This story is untrue: there was no race, nor any bag of gold dollars. The Glencaird sailed on July 19 and arrived on November 11, 114 days; the Wanderer sailed on the 29th July and arrived on the 24th November, 117 days (115 to tug); and the Osborne sailed on August 16 and arrived on December 7, 113 days. There was very little to choose between them.

On Friday, the 18th August, the Wanderer came into what seems to have been the lower right-hand quadrant of a hurricane. The wind, which had been blowing fresh with squalls, increased during the afternoon and carried away the foretopsail sheet, which was repaired. By ten o'clock at night it was blowing so hard that the ship was shortened down, and the mizzen topsail handed. While the men were on the mizzen topsail yard,, the lower topsail blew away, and two jibs and the main topmast staysail were torn out of their gaskets and ruined. She shipped much water throughout. One big sea came aboard forward, knocked the roof and bottom off the pigstye, and shook up the solitary pig. On the 22nd, it blew fresh from the northwest, and the Wanderer ran before it under lower topsails and foresails. While running, her foresail split and a heavy sea broke aboard, washing the watch about the decks. It took one man of the watch, washed him to the spare spars, lifted the spars in their lashings so that the man's head came underneath them, and then, gently retreating, letting the spars down upon him, left him pinned there by the head so that the rest of the watch had difficulty in releasing him. He was not hurt, but ran some risk of being drowned before the spars could be lifted.

The rest of the voyage was uneventful. They sighted Tristan de Cunha on the 21st September; passed several large icebergs on September 26 (in latitude 39° 24′ South); met the Dalhousie tug on November 22, and moored at Budge Budge two days later. After discharging there the ship was towed to Calcutta, to load jute for Dundee. She sailed, with 22,870 bales of jute on board, and arrived on the 117th day.

(Continued on page 108)



How often have you remarked: "Why doesn't Chris-Craft build my kind of a cruiser—staunch, seaworthy, comfortable and moderately priced? What I want is a liveable, lovable sort of a cruiser that I can really use and enjoy in my own way. Go as I please. Stay as long as I want to. Safely. Comfortably. Happily."

Chris-Craft now offers a new fleet of cruisers that will carry an entire family or a group of congenial friends. Not race boats in the true Chris-Craft sense, yet able to tick off the miles fast enough to leave most cruisers behind. Some of these will be available for Florida winter delivery. Details on application.

CHRIS-CRAFT CORPORATION - 390 DETROIT ROAD, ALGONAC, MICHIGAN

New York Direct Factory Branch - 1 West 52nd Street at 5th Avenue

Runabouts — Sedans — Commuters — Cruisers — Yachts

Chris-Craft

A STATEMENT ABOUT
PHILIPPINE
INDOAKO
WOOD

THOSE who are familiar with INDOAKO know that it is the ideal boat wood, beautiful, strong, durable, resistant to deterioration, light in weight, easy to work and finish.

But to those to whom INDOAKO is only a name the impression may be conveyed that this wood has something to do with oak—especially since it is sold by the Indiana Quartered Oak Company.

So we feel that we will prevent misunderstanding by stating emphatically that INDOAKO has nothing whatever to do with oak. It is quite different. INDOAKO is naturally a light red-brown and may be finished in every shade from honey-yellow to deep red-brown. In practically every respect—texture, ribbon-grain, weight, hardness—INDOAKO resembles mahogany, although botanically it is not mahogany.

Most boat builders use INDOAKO—for planking, framing, bright work. Make sure that this remarkable wood enters into the construction of your craft. Write today for literature and samples.

INDIANA QUARTERED OAK CO.
222 East Avenue Long Island City

15 HR TO 240 HP
POWERED BY Buffalo
$480.00 TO $2800.00

A Symbol of Dependable PERFORMANCE
Buffalo Marine Engines
Hundreds of owners are proclaiming their dependability, economy and service.
Literature upon request
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STROMBOS
Compressed Air Marine Signal
Duplex Model

Made in 15 models and tones for all types of sea, river and lake craft. Send for catalog.
J. THOMAS RHAMSTINE*
Successor to American Strombos Co.
584 EAST WOODBRIDGE DETROIT

THE WANDERER—OF LIVERPOOL

(*Continued from page* 106)

THE THIRD VOYAGE
Captain, John Brander
Chief Mate, Charles Kain
Second Mate, John Sinclair

Left Dundee, July 7, 1894, in ballast.
Arrived Barrow.
Left Barrow, August 6, with rails.
Arrived Calcutta, November 28.
Left Calcutta, February 24, 1895, with jute.
Arrived Dundee, June 18.
Left Dundee, July 9, in ballast.
Arrived Liverpool, July 16.

During the voyage to Calcutta the cargo of iron rails shifted. As Captain Brander described it, the movement of the rails in the hold made music like the sound of a thousand Aeolian harps.

After this, in Calcutta, the captain was warned that one of the native ship-surveyors was in league with a firm of ship-repairers. Going suddenly below while the ship was at her moorings, the captain caught this surveyor trying to create a little job of ship-repairing by smiting the flange of a beam with a maul.

Of the 22,820 bales of jute loaded at Calcutta not one was landed at Dundee in a broken condition. This was believed at the time to be a record. It was understood that the captain was to be suitably rewarded by the consignee.

THE FOURTH VOYAGE
First Half
Captain, John Brander
Chief Mate, J. W. Willoughby
Second Mate, John Sinclair

Left Liverpool, August 26, 1895, with 4,133 tons of salt, 270 tons of ballast.
Arrived Chittagong, December 20.
Left Chittagong, March 17, 1896.
Arrived Calcutta, March 20.
Left Calcutta, May 2, with jute.
Arrived Philadelphia, September 22.

In Philadelphia Captain Brander and the second mate, Mr. Sinclair, left the ship.

During this voyage, the Wanderer suffered the severest test she ever had at sea. On the 11th of December a cyclone passed over her in the Bay of Bengal.

December is late in the cyclone season there, though a few bad storms are recorded for that month. This particular storm is recorded in the Indian Daily Weather Reports from the observations at shore stations only.

That of December 10 shows a low near the center of the bay; and the following remark—The depression has intensified somewhat during the last twenty-four hours, while it has continued to progress towards the upper part of the bay.

December 11. Cyclonic depression clearly shown on weather map, centered northwest of Chittagong; and the remarks occurs—The storm appears to have intensified considerably during the past twenty-four hours, and to have traveled along a curved path which has led it to the northeast of the bay. The center apparently struck the Chittagong coast at about 8 a.m. this morning. The storm is of moderate intensity, and has given fresh to strong winds or moderate gales over the north of the bay, and heavy to moderate rain to Burma, East Bengal and Assam.

On December 12 the following remark appears—The cyclonic storm which lay near Chittagong yesterday has wholly disappeared, and has been succeeded by a recovery of pressure which has been very rapid over Bengal and Cochar, and has been brisk to rapid over a very large part of the whole Indian region.

There is also the brief report in Lloyds' Weekly Index, from a cable dated Calcutta, December 11, 2.16 p.m. Day Signal No. 5 has been hoisted. This indicates the existence of a cyclone of small extent, which will probably reach and cross the coast of the bay, south of a line joining Chittagong and False Point.

I have not been able to find any Meteorological Log from a ship in the bay during the storm. The experience of the Wanderer has been told to me by three who were on board her at the time. All three are agreed that no words can describe the fury of the storm, the power of the wind and the madness of the sea. All three are men who have passed long lives at sea, to each of them this brief storm stands out as by far the most terrible weather he ever knew; nothing like it, nothing to be mentioned in the same day with it.

This storm was preceded by a day of falling barometer, with baffling winds and heavy rain. Captain Brander foreseeing an unusual storm sent his skysail yard down from aloft, snugged the ship down to upper topsails, double-gasketted all sails, stowed his mainsail and cross-jack, and bent three lower storm-staysails and a storm spanker.

On the morning of the 11th, the ship was beating slowly ahead

(*Continued on page* 110)

Advertising index will be found on 3rd last page

WHEELER PLAYMATES

Winners

CATRUS II—36-foot Wheeler "Playmate"

"The Champion Cabin Cruiser of the Great Lakes," owned by Russell A. Hart, of the Detroit Yacht Club, won annual Scripps Reliability Trophy on August 24th. A severe storm forcing five of the fourteen contestants out of the race, Catrus II took first place over the 122 mile course in 7 hours., 43 min., and 56 sec. Powered with 180 h.p. Sterling Motor.

●

CHANG WAU IV—40-foot Wheeler "Playmate"

Driven by David Hasbrouck, this 40-foot Wheeler "Playmate" Cruiser won the Annual Cruiser Race of the Englewood Basin Yacht Club over 47 other high-class Cruisers, August 30th. Course 24 miles, from Englewood Yacht Basin, N. J. to Haverstraw, N. Y. and return. Time 1 hr. and 34 min. Powered with two 8-cyl. Universal 2¼—1 reduction gear Motors.

●

"PLAYMATE"—36-foot Wheeler "Playmate"

Winner of the 6th Annual Ocean Race of the Sheepshead Bay Yacht Club, August 24th. Driven by David Macrae, this 36-foot standard "Playmate," the only scratch boat in the race, won over the seven other contestants in a heavy sea against strong winds. Distance 47 miles; triangular course. Powered with 180 h.p. Sterling Motor.

An open-sea demonstration of duplicates of these three "Playmate" winners can be arranged at your convenience by telephone.

Write for Catalog A

WHEELER SHIPYARD

Distribution Points

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WHEELER SHIPYARD

FOOT HARWAY AVENUE
BROOKLYN, NEW YORK
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The famous

CARL ZEISS

"BINOCTAR"

Used by masters of ocean liners, naval officers and yachtsmen in every part of the world, and selected as *the official binocular of the U. S. Navy!*

Having extremely high light transmitting capacity, the "Binoctar" is a wonderful night-glass. It has a magnification of 7x, and a wide field of view—128 yds. at a distance of 1000 yds.

See the "Binoctar" and the other Zeiss models at your dealer's. Write for literature.

CARL ZEISS INC., 485 FIFTH AVE., NEW YORK
728 So. Hill Street, Los Angeles

The ALFITE Yacht System

Your surest protection against Fire

One pull on a lever and Alfite Gas kills fire almost instantly. Injures nothing . . . leaves nothing to clean up. Moderate in cost. Write American-LaFrance and Foamite Corporation, Dept. S23, Elmira N. Y.

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AN ENGINEERING SERVICE

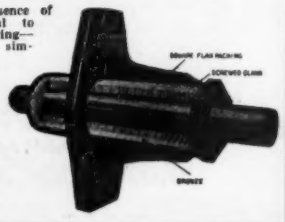
AGAINST FIRE

The **Hathaway**

FLAX PACKED STERN BEARING

A stern bearing combining every advantage offered in any other type, and free from all of the shortcomings of other types.

Cushioned resilience—entire absence of vibration — no possibility of metal to metal pound—no sand grind or scoring—no overheating—no seizing—extreme simplicity, speed and economy of repacking—one to three hours work without removing bearing from boat—one to five years hard, constant service without repacking or adjustment.



Descriptive literature and prices on request.

HATHAWAY MACHINERY CO.
New Bedford, Mass.

THE WANDERER—OF LIVERPOOL

(*Continued from page* 108)

on the starboard tack in a full gale, with overcast sky, heavy rain, and a falling barometer. At 7 a.m., as the gusts were increasing in violence, all hands were called to take in the three upper topsails and reef the foresail. When she had been snugged down Captain Brander wore ship to the port tack, judging that as the wind-shift was from east towards north, he was in the left-hand semi-circle of the storm. He had hardly brought her to the new tack when the wind increased to an extreme of violence and every sail that was set was blown to tatters.

Captain Brander hove her to and divided his crew into three parts, putting some forward in the galley, some in the central wheel house and the rest aft with himself under the whale back.

Soon after he had taken his position, Captain Brander sent the seaman (now Captain) John Mackay, with Mr. Sinclair and the carpenter to fetch axes from the chart house in case he should have to cut away the masts. With great difficulty they reached the chart house, where they noticed that the barometer was at 28.12 inches and still falling. They took the axes and contrived to return to the whaleback, where they stayed.

Nothing more could be done, for it was now blowing a hurricane, the sea and sky seemed to meet and blend, it became pitch dark, so that a man was invisible a few feet away: the sea rose and burst over the ship as if she were a half-tide rock; and no man could hear himself shouting. No man there had ever dreamed it possible that there could be such wind. Captain Brander had been more than twenty times round the Horn to the westward and had never known anything like this.

From 10 a.m. until 2 p.m. the storm beat and tossed them with such violence that all hands were more or less injured. All agreed that few ships could have taken such punishment and survived. Some felt that the only thing which saved her was the fact that her decks were always full of water, so that no big sea sweeping her could strike her fairly and stave in her hatches. The sea was the usual confused cyclonic sea, coming in over the bows and running aft and coming in over the stern and going forward. The ship behaved superbly, she came up to the wind-shifts and stood what few ships have stood.

Just before 2 p.m., Captain Brander, at great risk, went forward to the bridge. In a glimmering of light he saw the ship full to her rails fore and aft, and the lifts of the lower yards breaking. While he was wondering what would happen when the lower yards fell, there came a gust worse than anything that had gone before it, and a flash of lightning traveled down the mainmast conductor and simply made a hole in the water large enough to put a boat in.

Soon after 2 p.m. the wind moderated, the darkness, that had been intense for six hours, cleared, and the sun shone. This was a relief to all hands, but no great relief to the ship, for a terrible cross sea still ran from every direction. Nothing could be done about decks with such a sea running. Captain Brander gathered all hands onto the bridge, where they passed the night lying on deck along side the chartroom.

At daybreak next morning all hands turned to take stock and repair damage. No man there had ever seen a ship in such a plight.

All her starboard bulwarks from the poop to the whaleback were torn loose, with most of their stanchions broken, or wrenched clean out from the deck. The loosened seams of the deckplanks had let in water. There was more than three feet of water in her lower hold. The first thing to be done was to get the donkey-engine to work to pump her clear.

Every shred of canvas aloft had been blown from the yards into little tattered strips a few inches long. Many of these strips had been blown athwart standing rigging, frapped round and knotted onto it and then beaten so hard by the wind's fury that each piece was like bone, and could only be cut away with considerable effort. All the standing rigging needed setting up, practically all the running rigging was destroyed. All hands turned to, secured the rigging, and got sail upon her. On the 20th of December the ship reached Chittagong, where her salt was discharged.

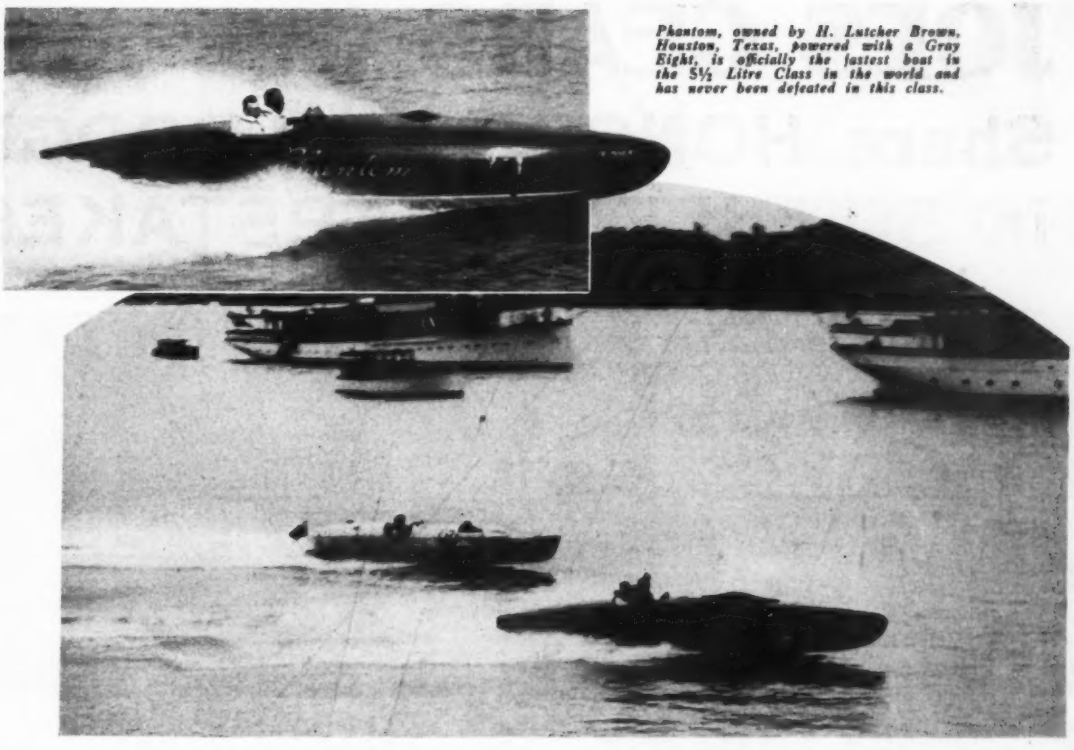
On the 17th March, 1896, she towed to Calcutta, arriving on the 20th March.

In Calcutta, as she was loading jute, she lost two seamen, one dying from heat apoplexy, the other from cholera. Four of her crew, who absented themselves without leave, received ten days' imprisonment, and three of these four, who on experiment preferred the jail to working on board, were afterwards each sentenced to fifteen days rigorous imprisonment, with costs. The ship left Calcutta on the 2nd May, bound for Philadelphia. Provisions ran short, so that she had to put into St. Helena for bread and stores. She arrived in Philadelphia on the 22nd September.

Captain Brander and the second mate, Mr. Sinclair, both left the Wanderer in Philadelphia.

(*To be continued*)

Advertising index will be found on 3rd last page



Phantom, owned by H. Lutcher Brown, Houston, Texas, powered with a Gray Eight, is officially the fastest boat in the 5½ Litre Class in the world and has never been defeated in this class.

GRAY PREDICTS A BRIGHT FUTURE

for the New 5½ Litre International Class

THE first official competition for the Detroit News International Trophy has proved beyond question the sound development value and close human interest in the new 5½ litre class. Conceived this year with the dual idea of keeping building costs within popular reach and limiting the contestants to practically identical power plants, this class has already called forth the utmost finesse in design, construction and driving skill.

Phantom, powered with a Gray Eight, proved herself the speediest boat in this class, winning first place in both the second and third heats at Detroit after being overturned and sunk while leading in the first heat by the wash of a careless patrol boat.

Miss Britain, produced and driven by Mr. Hubert Scott-Paine, England's foremost speed boat designer, won the trophy, being the only contestant that ran in all three heats, finishing alone in the re-run first heat (Phantom being debarred from this heat because she sank as referred to above). Miss Britain also took second place in the second and third heats.

Baby Minchas, another contestant, powered with Gray Eight and Cross Step-up Gear, is one of several boats built from plans originally published in MOTOR BOATING.

The future of the 5½ Litre Class is bright because the rules permit ample latitude in design and detail, prevent undue expense in construction and equipment, and produce sound seaworthy boats that are fast, safe, reliable and practicable for daily service. Many more boats of this class are already planned, stimulated by the success of the first race at Detroit.

Gray Eight holds all speed records for 5½ Litre boats—fastest heat (15 *miles*, 42.961 *miles per hour*)—*fastest lap* (2½ *miles*, 43.855 *miles per hour*)—*fastest official time* (15 *miles*, 45.894 *miles per hour at Red Bank, N. J., August 17th*).

For information about 5½ Litre Class rules, plans, or details of the Gray Eight, Address

GRAY MARINE MOTOR COMPANY

680 Canton Ave **Detroit, Mich.**

77 Adelaide St., W., Toronto, 2, Ont.

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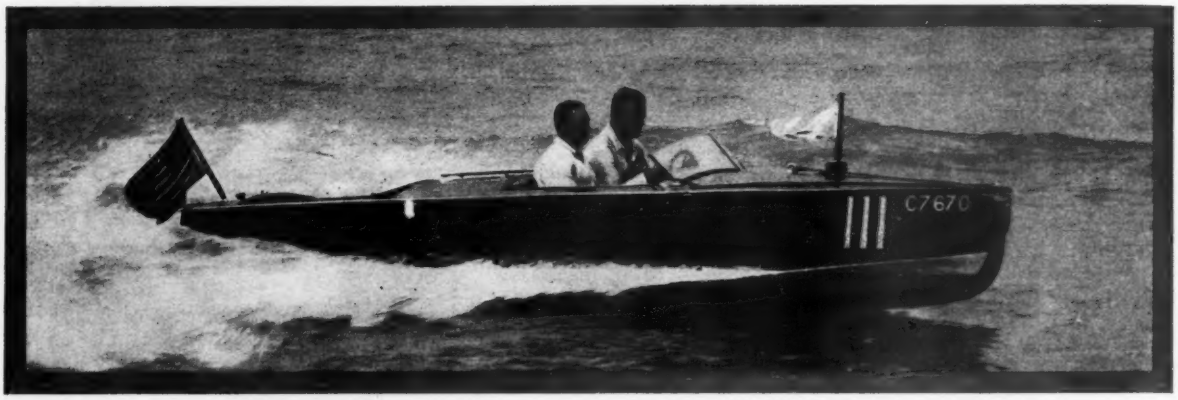
JOES GEARS . . . . . Share HONORS with DODGE in 50-MILE SWEEPSTAKES



OVER a choppy two and a half mile course with six turning buoys, the first running of the Dodge-Sixteen Fifty-Mile Sweepstakes was won at Detroit on Labor Day in a pouring rain by Frank Wiggelsworth of Boston.

Twenty-five boats started. They were all Dodge 16-foot Runabouts and they were all equipped with JOES GEARS.

Nineteen boats crossed the finish line; four were waved off the course; one ran out of gasoline, and one quit.

But not a single boat had the slightest mechanical trouble. Expert service engineers were stationed on a barge provided by Dodge—they had nothing to do but watch the race.

All of these boats were equipped with Lycoming motors, and Lycoming is one of the *fifty-three marine engine builders who standardize on JOES FAMOUS REVERSE GEARS.*

Put your gear problems up to our engineers. They will help you.

53 Engine Builders Standardize on JOES GEARS

THE SNOW & PETRELLI MFG. CO.
10 FOX STREET
New Haven, Conn.

JOES FAMOUS REVERSE **GEARS**

REVERSE 80%~88% *of Motor Speed*

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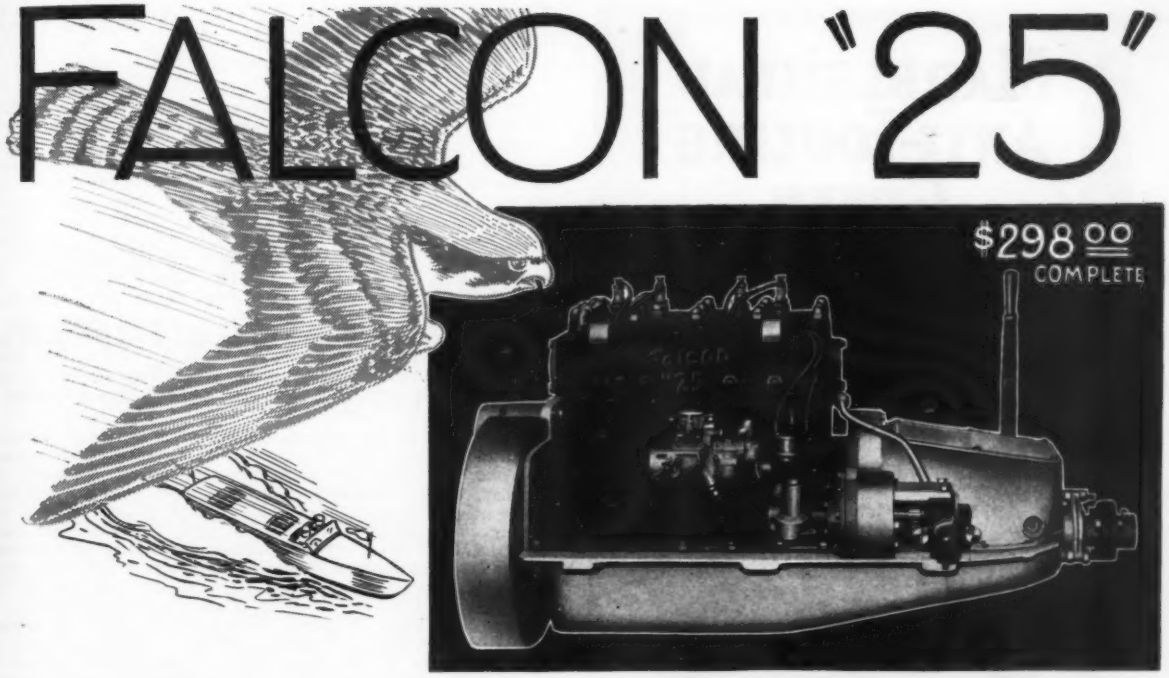
FALCON "25"



for Runabouts and Small Cruisers

HERE'S a motor that provides the sweetest combination of real sport and economy for your runabout or small cruiser that you can find anywhere.

All of Falcon's noted characteristics of smoothness, power and stamina are packed into this stocky, speedy engine.

There are 16 and 17 foot runabouts—powered with the Falcon "25"—clipping off 18 to 24 miles and better. 22 to 30 foot cruisers are running on as little as one gallon of gas per hour.

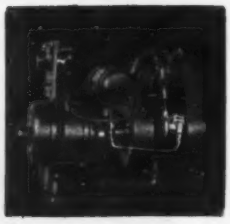
Why not take advantage of this speed and economy? Install a Falcon and save on original cost as well as upkeep. The Falcon "25" sells for as low as $298 complete with reverse gear. Without reverse gear, even less.

The same advantages prevail in other Falcon models—from 5 to 50 H.P. Write for full particulars, stating size in which you are interested.

BOAT BUILDERS—
write for special proposition

"FALCON" SERIES

5 H.P. Single	15 H.P. Four	40 H.P. Four
10 H.P. Twin	25 H.P. Four	50 H.P. Six



"U. S." *super-smooth* ELECTRIC PLANTS

as low as $137.00

The "U. S." line is the most complete line of distinctly marine electric plants in the industry—ranging from 350 watts up to 15 K.W. Among the dozen or more models it is easy to obtain the proper size plant you need. "U. S." plants are noted for their smoothness—both in operation and current output. Eleven leading boat builders have standardized on "U. S." plants. The Wheeler Shipyard has used about fifty already this season. All users are enthusiastic about their performance. Let us send you literature and prices.

United States Motors Corp.

Established 1890

Central and Eastern Canada Sales Office
Maddox Engineering Co.
75 Adelaide St., W.
Toronto, Ont., Canada

Factory and Main Office
102 NEBRASKA STREET
OSHKOSH, WISCONSIN

Pacific Coast Representative
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MARBLEHEAD ANTI-FOULING GREEN BOTTOM PAINT

Saves Its First Cost Many Times Over

because it covers twice the Surface, lasts a long time, and is the most effective Bottom Paint produced.

"The highest grade product that can be used."—JOHN H. WELLS, Inc.
"Gives perfect satisfaction."—THE MATTHEWS COMPANY.
"Will use it exclusively."—HACKER BOAT COMPANY.
"We are satisfied with the results obtained from this remarkable paint."—HENRY J. GIELOW, Inc.
"Unable to find anything that will stand up as your paint does."—GEO. LAWLEY & SON, CORP.

STEARNS-McKAY MFG. CO.
Marblehead, Mass.

ALGONAC BOAT HOISTS

IF you have a nice boat, why not keep it nice with one of these Hoists? You will be more than pleased with this easily operated and substantial hoist.

$140.00 to $300.00
Fully Guaranteed

Monnier Bros., Inc., Algonac, Mich.

EASTMAN *flying Yacht* - $9985

DETROIT AIRCRAFT
FORT AND CAMPAU STREETS, DETROIT
Chanin Bldg., New York : : Roosevelt Bldg., Los Angeles

FIRST TASTE OF AEGEAN WEATHER

(*Continued from page 60*)

lower the foresail and make up the anchor. Ahead, as we turned north and paralleled the jetty, we saw a myriad of lights. I breathed more freely when I realized that they were quay lights and that except for a swarm of kaikis and a fleet of laid-up steamers on the west side of the capacious harbor, and two steamers on the east, the harbor was clear. We chugged slowly on and let go at the very head of the harbor, about two jumps from a coffee house whose tables were spread invitingly on the quay. The contrast between the black tumultuous sea outside and the cheery, crowded quay inside was as happy as anything I've ever seen.

It didn't take long to find that we had chosen the wrong place for anchoring. A harbor official came aboard, pointed out a choice spot near the steamers on the east side, and did us the kindness to help weigh and moor us. At ten of the clock after a fifteen-hour run which had given us a hearty respect for the Aegean we turned to on a mess of scrambled eggs and called it a day.

In the morning we woke to find ourselves in one of the most beautiful harbors of the Aegean. Syra (also called Thermopoulis) was once the busiest and most important harbor of Greece. In the days of its prosperity its white houses grew up one row above another until they covered two hills to northward of the harbor. The rise of Piraeus as a shipping center brought about the decline of Syra. Now, I understand, many of the small houses which contribute to the trim beauty of the town stand empty for lack of tenants at the ridiculously low sum of 100 drachmes ($1.33) a month. This is not to say that Syra has fallen upon evil days. It is still the shipping center of the Aegean islands and the place of transshipment of freight from vessels of foreign nations to the island carriers. Around the harbor on the morning after our arrival the close-packed kaikis, painted their brilliant reds and blues and greens, tugged at their chain cables, for the wind still howled outside and the harbor waters stirred, and the kaikis, like Hotspur, remained at mooring.

Altogether Syra was a harbor to come to after a hard tussle and one eminently suited to remain in while the clouds hung over the neighboring island of Tinos and the wind sent the surf crashing over the breakwater. We could not have been better placed nautically (or so it seemed at the time) for our stern was toward the quay with two warps out, and the wind, finding its way over a protecting block of buildings, blew down our open hatch and cooled us. Nor could we have been better located if one viewed Hotspur and her crew in the light of curiosities.

During the day our appearance on deck, no matter how brief, was the signal for a crowd to collect on the quay. It was not insistently inquisitive, this crowd, and offered no audible comments. It just stood, first on one foot and then on the other, watching these two fools who, if the initials on Hotspur's stern could be believed, had sailed all the way from New York. I doubt if it would have allayed and baffled wonderment of the Greeks if they had known that we had sailed only from Piraeus. We could see from glance and gestures that they thought our mast too high and that Hotspur was utterly unsafe for such a sea as the Aegean. Well, every man to his taste. A sailor from a kaiki has told me (and told me why) that he wouldn't go outside a harbor in a boat with a mast like Hotspur's. And for my part I wouldn't go far in a kaiki of such low freeboard that canvas dodgers are required to keep the sea off its deck.

In the later afternoon we went ashore to hire a taxi and pay a visit to the local orphanage of the Near East relief. Oh, these Greek taxis, with the interminable blowing of their horns—a blowing required by instead of punishable by the law! They bump and wheeze over the rutted roads, accelerating to a speed of forty kilometers and then coasting with dead engine almost to a standstill, when at the turn of the switch and the engagement of the gears they wake to raucous acceleration. The high cost of gasoline is responsible for the taxies' spasmodic mode of progress, but Satan himself guided the hand that wrote the law about sounding the horn.

We arrived at the orphanage, met Mr. Myers, the director, and were by him shown through the spacious and nearly empty buildings. Erected at the time of the last great expulsion of the Greeks from Turkey, the orphanage has in the intervening years sheltered more than 3,000 orphan refugees. These have grown up or been found by relatives or adopted by fellow townspeople and now the orphanage with only 200 charges is at the point of dissolution. Before the end of the year the remaining refugees will be placed in other homes and this great American institution will have written finis to its work.

We remained for supper with Mr. Myers and his little adopted

(*Continued on page 116*)

SWIFT ... SURE

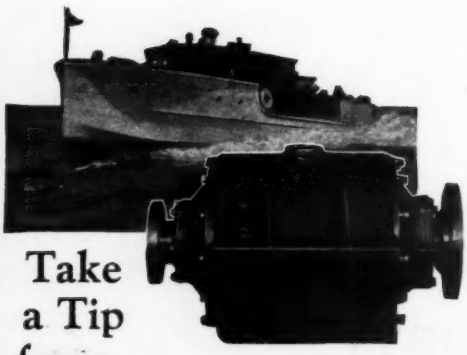
WITH GRACIOUS COMFORTS

And Alluring Cruising-Commuting Speeds

If you are a yachtsman seeking a new type of boat—one that offers speed, has the rugged lines of stout performance built into its hull, provides you with those gracious comforts so needed afloat—turn to a Robinson Seagull model! The 39-foot Seagull Sport Sedan, with its attractive cabin, competent galley and toilet, gives an extensive cruising radius coupled with a distinguished design. The 40-foot Seagull Speed Cruiser, twin powered, with Kermath "225" engines, has 38 miles per hour built into its illusively beautiful hull—sleeping accommodations for four and day cruising room for fifteen or twenty. There are a few men either wealthy or sophisticated enough to want a custom built model. Yet for them the Seagull "45" Commuter was designed. Twin powered, with speeds up to 40 miles per hour . . . Luxurious . . . Competent . . . Complete . . . Beautifully built . . . Smart beyond the use of words . . . A priceless essential. As the largest exclusive builders of sedan and speed cruisers and commuters, we offer you our renowned facilities and experience in aiding your plans for boat ownership. Write or wire for details.

ROBINSON *Seagull* CRUISERS

ROBINSON MARINE CONSTRUCTION CO. BENTON HARBOR, MICH.



Take a Tip from the Barbara Ann

The 48½ ft. Cabin Cruiser, Barbara Ann, illustrated herewith, is only one of the many highly successful Morse Reduction Gear installations in service. It is powered by two Model 125 Kermath engines, driving through two Model F Morse Straight-Line Reduction Gears. Cruiser builders and owners find Morse Reduction Gears of particular advantage in gaining the maximum in boat performance because they are the medium that offers the exactly right propeller speed for the wheel best suited to the craft. Gears are run in a water jacketed case, assuring maximum efficiency and quietness. Installation can be made in boats already in service. Write for full particulars and prices.

MORSE CHAIN CO., DETROIT, MICH.

MORSE

REDUCTION GEARS

TANKS

For Storage of
GASOLINE, OIL or WATER
Made to Order

No matter what your tank problem, we are ready to meet your requirements for special shaped tanks in galvanized steel, Monel metal or copper. Our engineering department will be glad to assist you. Also a large supply of standardized tanks in many sizes carried in stock for prompt shipment.

RUDDERS, STACKS, SPECIAL WORK
GALVANIZING

L. O. KOVEN & BROTHER
Incorporated
154 Ogden Avenue Jersey City, N. J.

"Perko" Equipment enhances the value of any boat—all the latest and best ideas—streamline designs with quick rebulbing features—regulation lights for oil and electricity with conveniently front opening doors—dainty electric lights for outboards—searchlights and cabin lights. *68-page Catalog free on request.*

PERKINS MARINE LAMP CORP.
1946 PITKIN AVENUE :: BROOKLYN, N. Y.

FIRST TASTE OF AEGEAN WEATHER

(*Continued from page* 114)

son Johnny Powers and then asked them down to the harbor to have a look at Hotspur. Awaiting us on the quay we found a young American woman, Miss Palmaris, who has been visiting relatives in Syra for the last three years and who had a twinge of homesickness at sight of our American flag. Accompanying her was Pierre Bis, actor, dancer, and refugee from red Russia. Having no more than a rudimentary command of the English language, Bis's ambition to come to America to play in the movies was thwarted when the motion picture industry went talky. Full of artistic fire, and bubbling with ideas, but lacking either an American contract or a Russian passport, Bis is fated to remain in the only European country which offers him sanctuary.

In two dinghy loads we boarded Hotspur, where P. L. broke out ginger ale and we all sat and talked until midnight. When our guests left us Mr. Myers took Johnny home to bed, but in my last look around before turning in I saw Miss Palmaris and Monsieur Bis still standing on the quay, reluctant to lose sight of the Stars and Stripes rippling in the breeze.

Very early in the morning I had a rude awakening. For some minutes I had been half conscious of the angry shouts of harbor boatmen; but these had not roused me because they are a natural concomitant of a steamer's arrival in a Greek port. The ship comes in, her gangways already lowered, anchors in the harbor's center and then by a remarkably deft display of seamanship swings her stern around and moors to the quay. While this goes on the varkes, gorgiously painted and able rowboats, hover at the gangways and even within narrow yards of her churning propeller. At the same time the varkamen, standing at their oars and crowding for precedence, hurl the most insulting epithets at one another and clamor for the patronage of disembarking passengers. All this is natural. If a steamer arrived without this prodigious uproar it would not be a Greek steamer entering a Greek port.

What woke me, then, was something else—the dismal scrunch of wood on wood. I sprang to the fore hatch, thrust the screen aside, and looked out at a most curious scene. Here was not one steamer coming in, but a pair of them, and having the devil's own time getting their big sterns into the hard northeaster that was still blowing. To do so they were not backing, but going ahead against their anchors, and the result was a stream of water coming with the force of a mountain torrent against the northeast side of the harbor where we lay moored. Although the varkamen shouted as vociferously as ever, they were all rowing, in two long lines, as hard as they were able to keep from being swept back against the masonry. And our anchor which had been carried out by boat and had never properly bitten in, was merrily dragging across the harbor. Hence the scrunch of wood grinding against wood. Astern of us were three unused varkes, wedged between us and the quay and bearing the brunt of our impact.

I at once started the motor and attempted to get out of there. But as the swift current was on our port bow, and as our propeller is offset to port and the initial tendency of Hotspur is to turn to starboard, the efforts of the motor were worse than useless. The more we speeded up the more we crushed against the varkas, and I soon saw that if we didn't want a nice bill on our hands the best thing to do was nothing. Fortunately only another minute or two elapsed before the steamers worried themselves into position and went astern with their propellers. Instantly the current ceased and the pressure of our starboard quarter against the varkes was eased. In another moment I was able to assume control of Hotspur, slack off our stern lines, anchor well out and get to rights again.

From this episode I learned that when you intend to moor stern on the usual method of letting go the anchor must be reversed. Instead of (as I was taught to do) anchoring when a vessel has lost headway and has sternway, you must let go while still forging ahead at a good speed. Then, tending your chain or cable, you carry on until within two boat-lengths of the wharf and snub her hard. Then run out stern lines and warp around, bow to the stream. By this means, which is employed by all the Greek kaikis, you may be sure that your hook has bitten in and that neither high wind nor strong current will bring it home.

We turned in after our enlightening experience, but in a few hours were up again for the next leg of our journey. The Meltem still blew with unremitting enthusiasm, but I had begun to have the uneasy feeling that we were doing all our cruising in one spot. So, with a deep reef rolled down, we got under way for the island of Delos, the birthplace of Apollo and the center of the Cyclades.

(*To be continued*)

KUHLS

E·LA·S·T·I·C SEAM COMPOSITIONS

Boat Repairman

Boat Racer

Naval Architect

WHY DO THEY ALL SPECIFY "KUHLS" —for caulking and re-caulking?

Tight seams, assuredly—but more than that, tight seams that *stay tight* throughout the years.

Simply because a seam is a little thing and caulking is a casual sort of operation, don't underestimate the value of *tight* seams. They mean seaworthiness, comfort, peace of mind.

Owners, builders, captains, repairmen—all know Kuhls' if they know seams. It never becomes brittle. It retains normal elasticity—just as though it became part of the wood. Five colors. Easy to apply. Permanent protection.

Write for sample can and literature. We also manufacture marine paint.

H. B. FRED KUHLS

Sole Mfgrs. Est. 1889

65th St. & 3rd Ave., Brooklyn, N. Y.

for 40 years

No. 1 FOR DECKS
No. 2 FOR HULLS
No. 3 FOR LAYING CANVAS

Red Wing Thorobred
THE MOTOR WITH POWER TO SPARE

The Most Talked About MARINE MOTOR *of* 1930

RED WING WARRIOR

Talk, they say, is cheap . . . but talk bought at the price of performance is invaluable to any manufacturer.

Take the case of the Warrior. Not long ago it was an infant in the marine motor field and in the Red Wing line. Today, after two years of proof under pressure, it is spoken of as an outstanding achievement by *men* who know.

All of which simply means added prestige to the Thorobred family, *already very-famous.*

$495
WITH ELECTRIC STARTER

WARRIOR SPECIFICATIONS

Warrior, 30—50 h.p. Red Wing THOROBRED. Six cylinder, four cycle. Bore 3¾". Stroke 5". Piston displacement, 230 cubic inches.

Prices: $495.00 for medium duty type with grey iron base. $570.00 for high speed type with aluminum base. Prices include electric starting motor, generator, instrument board, enclosed flywheel, Paragon 90% reverse gear built-in, Schebler carburetor with flame arrestor, rotary water pump, water cooled exhaust manifold, heated intake. Flange shaft coupling for 1¼" shaft. Price with Robert Bosch magneto ignition $45.00 extra; or for double ignition system $60.00 extra.

—AND 18 OTHER THOROBREDS

from 4 to 150 h.p.

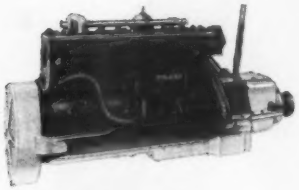
The marvelous Arrow Junior, pictured to the right, the newest of the Red Wing line, has 18 other brother Thorobreds, 4 to 150 h.p., to keep it company.

Its inheritance from this illustrious family is ruggedness, stamina and strength, for which all Red Wings have been noted throughout the marine world for over thirty years. Its contribution is *speed*—plus the sworn allegiance to uphold the renowned name of Thorobred.

THE ARROW JUNIOR

Fastest of all the RED WINGS

Also available with Built-in 2-1 Reduction Gear



Six cylinders, bore 3⅝", stroke 4¾". Piston displacement 255 cubic inches. Speeds to 2500 r.p.m. With electric starter, built-in reverse, full pressure oiling with filter and cooler; and most advanced construction in every detail. The price is sensationally low for so much quality represented.
Price with 2 to 1 Reduction Gear $905.

$730
WITH ELECTRIC STARTER

RED WING MOTOR CO.

RED WING, MINN.

Eastern Distributors:

W. H. MORETON CORP.
1043 Commonwealth Ave., Boston

VERRIER, EDDY CO.
201 East 12th St., New York, N. Y.

W. E. GOCHENAUER MFG. CO.
631 Arch St., Philadelphia

F. B. EISENBRANDT
Foot of Light St., Baltimore, Md.

Advertising index will be found on 3rd last page

FAYBOW

Dee Wite

MARSHALL BOAT WORKS

HACKERCRAFT

DODGE BOATS

Chris-Craft

CENTURY BOATS

DAWN TWIN-SCREW CRUISERS

A. B. Chase-Emerson Corp.

DART

DART BOATS, INC. TOLEDO, OHIO

ROBINSON Seagull CRUISERS

a.c.f. cruisers

JOHNSON BOATS

Atlas

Mullins BOATS

MARINE SPECIALTIES

KAINER & CO.

Hall Marks of Quality

Notable names, these, familiar to boating enthusiasts the world over—symbols of quality the manufacturers proudly add to their craft.

It is only logical that Erico and Kainer Specialties, with their dependable construction and snappy appearance, are found on boats such as these.

Builders everywhere know that using Erico and Kainer Specialties adds immeasurably to the trim lines of any boat—another SURE way to owner satisfaction.

KAINER & COMPANY
CHICAGO
763 Mather Street

SAFETY

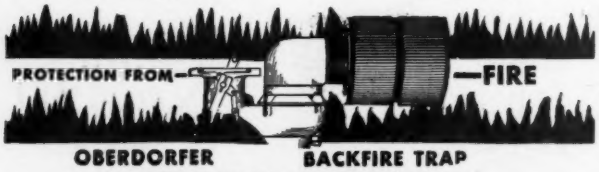
Patents Applied For

The Oberdorfer "Master" Automatic Electric Bilge Pump is a safeguard in emergency and a great convenience at all times. It is available in 6, 12 or 32 volt units.

The Oberdorfer Backfire Trap provides positive protection against fire from a backfire. At your marine supply dealers.

Write for complete information.

M. L. OBERDORFER BRASS CO.
2200 Thompson Road Syracuse, N. Y.



OBERDORFER BACKFIRE TRAP

Patents granted and others pending.

Oberdorfer Pumps

PRODUCTS FOR MARINE SERVICE

AC Instrument Panels
AC Tachometers
AC Thermo Gauges
AC Oil Pressure Gauges
AC Ammeters
AC Spark Plugs

Write for descriptive folder, giving us name of your nearest dealer

AC SPARK PLUG COMPANY
FLINT, *Michigan*, U. S. A.

92% of ALL RACE DRIVERS Use the ST. CLAIR SELF-BAILER

see your dealer or write us
ST. CLAIR IRON WORKS
ST CLAIR, MICHIGAN

YARD AND SHOP

(*Continued from page 62*)

MURRAY & TREGURTHA REORGANIZED

The old firm of Murray & Tregurtha has recently been reorganized and is now under new management. W. Cameron Forbes is chairman of the board; Frank W. Carpenter, president and treasurer; and Walter Smith, engineer.

Murray & Tregurtha have been in the business of building high-grade marine engines since 1891. They announce that the engines have been re-designed and are now supplied with the most modern accessories and equipment while retaining the qualities of excellent workmanship and materials that have characterized these motors in the past. New types are available for both heavy duty and high powered speed purposes.

AN EXPERIENCE FROM DOWN UNDER

Another testimony to the sea-going ability of the Chris-Craft runabout is contained in the report of a rough 68-mile trip which a 24-foot, 120 h.p. stock model made from Sydney, New South Wales to New Castle. A gale which had lashed the sea throughout the night had left the ocean very choppy as Richard Smith, a Sydney sportsman, together with a newspaper representative left the harbor at Sydney on their three-hour run. In the hope of finding smoother water Mr. Smith headed his boat out to sea for several miles and while the choppiness was avoided they ran into a heavy ground swell and confused sea which gave them many anxious moments. Upon arriving at New Castle both men were most enthusiastic in praise of the way in which their runabout had responded to Mr. Smith's handling and the fine performance of both boat and motor.

Down in Memphis, Tenn., Dee-Wites are proving popular in marine taxi service. Here are five sold by F. M. Graham, Memphis distributor

CITY ISLAND YARD ENLARGED

The Lyon-Tuttle Corporation have just purchased an additional piece of land adjoining their present property at City Island. This plot is 50 feet wide and 400 feet long and will be used this year for the storage of large boats, as it adjoins the south side of their property for its full length.

This new plot of land will provide more adequately for the fleet of craft of all sizes that make Lyon-Tuttle their winter home port. Next spring this plot, including the adjacent one of 30 by 400 feet, will be covered with a building of sufficient height to enable them to store express cruisers and commuters under cover.

The Lyon-Tuttle Corporation are manufacturers of a custom built runabout and have excellent facilities for handling runabouts and small craft quickly and economically, but in addition, they have equal facilities for handling yachts as large as 150 feet. Boats may be hauled out at any tide, stored and cared for all winter, and put in condition for delivery whenever wanted. There are crews of trained craftsmen on duty at all times, available for every type of work.

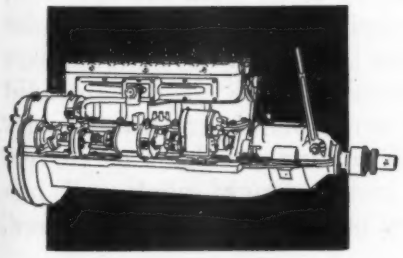
DIESEL GENERATING SETS

The Hill-Diesel Engine Company of Lansing, Michigan, reports the sale to Cox & Stevens of one of their Diesel electric generating sets for installation in the motor yacht Lotosland owned by Colonel Edward A. Deeds.

(*Continued on page 124*)

Advertising index will be found on 3rd last page

for the Standardized ...boat



Watch a boat equipped with a Palmer Engine make the landing. She can be throttled way down and then have the clutch thrown into reverse. The engine won't stall. And the clutch delivers 80% power in reverse. Then there is free time to handle the boat hook, for when a Palmer Clutch is put in position, it stays put. No one factor gives a standardized boat a better reputation than easy handling. There is a Palmer Engine for every type of boat. See that the boat you buy has one in her.

PALMER BROS. ENGINES, Inc.
COS COB, CONN.

PALMER

DISTRIBUTORS

New York, N. Y.
89 Third Ave., between 12th and 13th Sts.
Baltimore, Md.
514 E. Pratt St.
Philadelphia, Pa.
631 Arch Street
Boston, Mass.
Rapp-Huckins Co.
138 Beverly St.
Seattle, Wash.
Pacific Marine Supply Co.
Portland and Astoria, Ore.
Oregon Marine Supply Co.
Portland, Me.
Portland Pier
San Francisco, Cal.
Boardman and Flower
1740 Van Ness Ave.
Vancouver, B. C.
V. M. Dafoe, 1100 Powell St.
Biloxi, Miss.
Kennedy Bros.
Norfolk, Va.
Gas Engine & Boat Corp.
Miami, Fla.
B. E. Schubert, 1008 North West 8th St. Road
Jacksonville, Fla.
112 South Ocean Street
Tampa, Fla.
Ft. of Whiting St.

THE PALMER LINE

YT1—1-cylinder	2 h.p.	F4—4-cylinder	35 h.p.
PNR1—1-cylinder	6 h.p.	F6—6-cylinder	50 h.p.
PNR2—2-cylinder	12 h.p.	NK2—2-cylinder	25 h.p.
PNR3—3-cylinder	18 h.p.	NK3—3-cylinder	35 h.p.
PNR4—4-cylinder	24 h.p.	NK4—4-cylinder	50 h.p.
ZR1—1-cylinder	7 h.p.	NK6—6-cylinder	80 h.p.
ZR2—2-cylinder	18 h.p.	Little Huskie—4-cyl.	15 h.p.
ZR3—3-cylinder	30 h.p.	Power-Boy Six—6-cyl.	40 h.p.
ZR4—4-cylinder	40 h.p.	P. A. L.—4-cylinder	25 h.p.
F2—2-cylinder	18 h.p.	Green Witch—6-cyl.	150 h.p.
F3—3-cylinder	25 h.p.		

Columbian Equipped HOTSY TOTSY

Wins Gold Cup and National Sweepstakes

DRIVING his COLUMBIAN-equipped HOTSY TOTSY, Victor Kliesrath won the twenty-eighth annual GOLD CUP race at Redbank, N. J.

Driven by Richard F. Hoyt, the following day, this same boat won the NATIONAL SWEEPSTAKES.

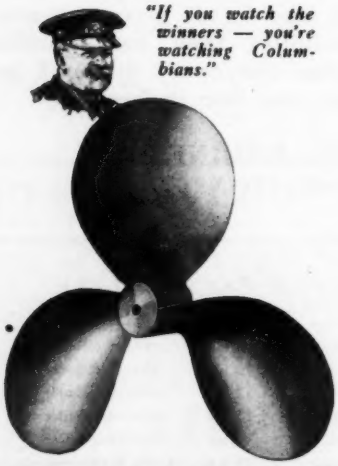
"Coincidence" has nothing to do with the fact that Columbian Bronze Propellers are to be found on the business end of winning boats of all types and sizes in all parts of the country. Back of the splendid records of Columbian performance are *thirty years* of engineering skill in solving problems of correct design; of attaining just the right pitch and balance to assure delivery of that *last ounce of speed.*

Your dealer or our engineers will help you to select a propeller that will assure maximum performance from your boat.

Write for "Propellers in a Nut Shell"

Cap'n Allswell says:

"If you watch the winners — you're watching Columbians."



THE COLUMBIAN BRONZE CORP.
208 NORTH MAIN STREET, FREEPORT, L. I., N. Y.

Pacific Sales Representatives:
H. A. B. SNEVE CO., SAN FRANCISCO AND SEATTLE

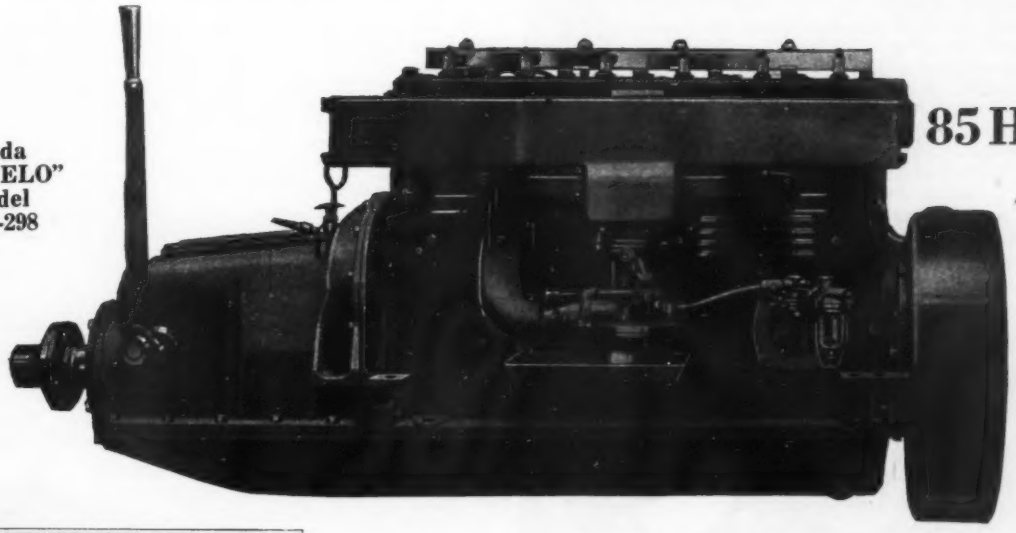
COLUMBIAN BRONZE PROPELLERS

SKEGS STRUTS RUDDERS CUTLESS RUBBER BEARINGS

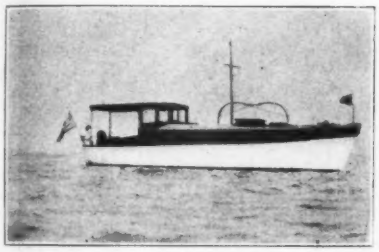
Advertising index will be found on 3rd last page

This BUDA Six at $775

Buda "HIVELO" Model HM-298



85 H.P.



"Entirely Satisfactory" in 36 Footer

Says Dr. W. H. Potter

Gentlemen:

"It gives me great pleasure to report that the Buda '298' recently installed in my boat is entirely satisfactory. Power, lack of vibration and quietness are extreme. Gasoline economy is surprising. At 1200 r.p.m. the motor burns less than three gallons per hour.

"A few days ago we traveled over a measured nautical mile in six minutes 57-3/5 seconds. Throttle was half open. Crank shaft speed 1200 r.p.m. Fair tide of less than one mile per hour and a ten mile head wind.

"When one considers the bore and stroke of the Buda and the speed it pushes my boat through the water it is very gratifying indeed. As you know the dimensions of my boat are 36' x 9'8" x 44". The planking and timbers are very heavy and the stern is of the compromise type. With wide open throttle the little Buda develops more power than I need.

"I am using a Hyde three blade 21 x 12 propeller wheel.

"Some of the old conservatives in this vicinity who prophesied disappointment for me when I got under way are very, very quiet. Their heavy duty ideas have received a severe shock.

"They preached a big bore not over 600 r.p.m. and a propeller wheel with an enormous pitch. Everybody knows such a motor will do its bit but why have a ton of metal absorbing needed space when half a ton will do the same amount of work. And do it with more economy, with greater quietness and less vibration.

"I might add that I have not clocked my top speed, but I would say that eleven knots would be conservative.

"Wishing you every success, I am,

"Very truly yours,
(Signed) W. H. POTTER."

In this Buda 6-cylinder marine "Hivelo" engine you have a 3-inch crankshaft and 7 main bearings —developing 85 H.P. at 3000 R.P.M. You have carburetor drip pan, backfire protector, oil sump pump, gasoline filter and fuel pump. The price also includes control panel with indirect lighting.
Ask for Bulletin No. 721.

The BUDA Line

6 cylinders—with or without reduction gear:

BM-336 80 H.P. GM-572 110 H.P.
BM-411 85 H.P. GM-636 126 H.P.

6 cylinders—"Hivelo" models, without reduction gear:

HM-288 75 H.P. HM-298 85 H.P.

Branch Offices:

30 CHURCH STREET - - - - - NEW YORK, N. Y.
664 MISSION STREET - - - - SAN FRANCISCO, CAL.

THE BUDA COMPANY, HARVEY, { CHICAGO SUBURB } ILLINOIS

ESTABLISHED 1881

BUDA MARINE POWER

Stretch the days

THERE'S an extra thrill in cruising at night—and an extra dividend on your boat investment. Get both by equipping with a Homelite Generating Set. It provides plenty of current for powerful searchlights, plenty of light everywhere, power for fans, pumps, anchor hoists, etc. Generator stows in 14" x 21" x 21". Price includes generator with built-in 1½ H.P. air cooled gasoline engine, 2500 watt hour battery and switch-box. Write.

$275

HOMELITE

HOMELITE CORPORATION
79 Rhode Island Ave., Port Chester, N.Y.

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We are distributors for
GOODRICH
Cutless BEARINGS

Another B. F. Goodrich Product

Marine Equipment & Supply Co.,
116 Walnut Street
Philadelphia, Pa.

HIGH LUSTRE
No "WHITE" Deposit

NO NEED of dull metal around the boat when I. C. U., with very little effort, will give copper, brass and bronze a high lustre with no "white" deposit. Sample free. Dealers and jobbers wanted.

THE LIVINGSTON COMPANY, DEPT. T
New Haven, Conn.

I·C·U· METAL POLISH

YARD AND SHOP

(*Continued from page 120*)

COMMODORE McLEOD

A few weeks ago the many friends of Commodore Alex J. McLeod were grieved to learn of his death at his home in Algonac. Last spring Commodore McLeod underwent an operation at Miami and never fully recovered from the effects of it. He had lived for the past fourteen years in Algonac after retirement from an active life in Detroit. Commodore McLeod has been identified in yachting activities for half a century and few other American yachtsmen have been better known.

Commodore McLeod was born in Providence, Rhode Island, in 1852 and came to Detroit with his parents as a small boy. Here in later years he became engaged in business activities and was an important factor in Detroit's nautical and political life. For several years he was city editor of the Detroit News and for four years clerk of the Recorder's Court. Nautically he was a sailor before the mast and at another time operated a line of steamboats on the Ohio. From 1890 to 1894 his capacity was that of secretary to Mayor Pingree and for the succeeding five years he was treasurer of Wayne County. He was engaged for several years in manufacturing activities and was a pioneer in the automobile industry in his association with the Maxwell-Bristol-McLeod Company.

The Commodore was a member of the Detroit, West End and Citizen's Yacht Clubs and was a director of the Detroit Yacht Club at the time of his death.

Commodore McLeod

RHODE ISLAND FIRMS CONSOLIDATE

The Dyer Motorcraft Corporation has been absorbed by the Herreshoff Manufacturing Company at Bristol, Rhode Island. They have been building high speed runabouts and cruisers upon a patented form of construction during the past several years at their plant in East Greenwich, Rhode Island, and their twin-screw express commuters are a familiar sight on the waters of Narragansett Bay and Long Island Sound.

Herreshoff is particularly in evidence at this time as the builder of the cup defender Enterprise. Every cup defender built since 1893 has been constructed by this company.

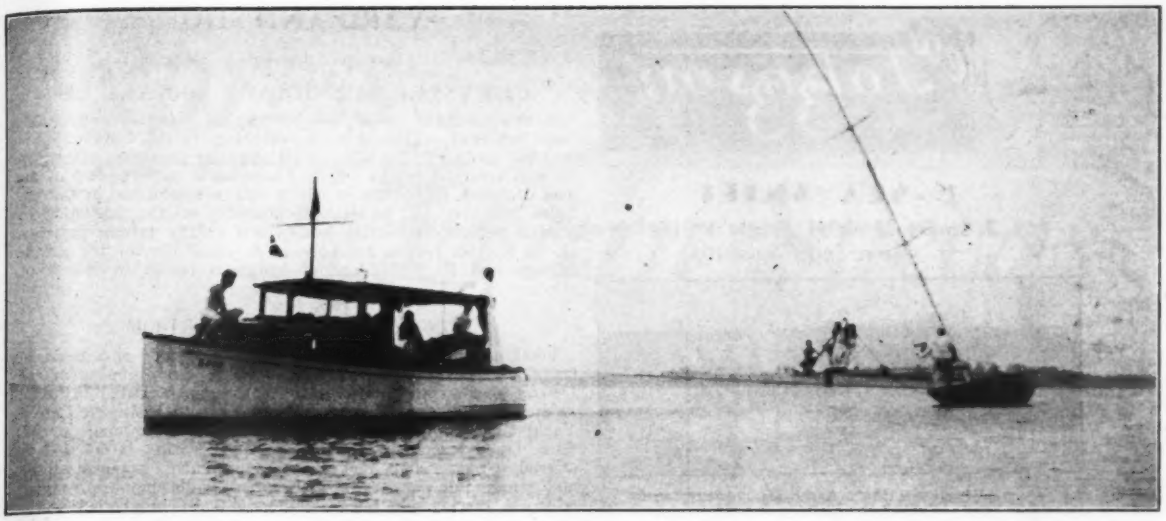
The Dyer Motorcraft Division of the Herreshoff Manufacturing Company will be directed by W. J. H. Dyer, former president and general manager of that firm.

WOOD CATALOG

A new pamphlet describing the entire line of Gar Wood runabouts has just been prepared. Copies may be secured by addressing the Gar Wood organization directly at its Algonac or Marysville plant or the New York distributors whose address is 1560 Broadway, New York, N. Y.

(*Continued on page 126*)

Advertising index will be found on 3rd last page



Richardson Cruisabouts

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ATLANTIC CITY, N. J.
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410 Carson Ave.
BAY HEAD, N. J.
Hubert Johnson

Handy, Dandy, Low-Priced Yacht Tenders!

Those Richardson Cruisabouts—jaunty white and varnished yachts—are exceptionally well suited for yacht tending.

One I saw on the sound a fortnight ago had an 8-meter yacht in tow and was taking her to windward to the mooring after a very hard day of racing. In storm or calm this Cruisabout is always on the job and in addition to the towing service provides a comfortable home for the crew.

Another is the tender for an "R" boat that circumnavigates Lakes Erie and Ontario in days instead of weeks. This "R" is entered in all the races instead of only a few as in former years and her string of flags is longer than that of any other boat in her class.

A large, eastern yacht club uses a Day Cruisabout for a convoy and mother ship to a fleet of "C" boats and also as the club ferry and workboat. This Cruisabout makes a quick, easy job of towing the largest yacht in the club—a former famous ocean-going schooner. There are many other instances too numerous to mention here when Cruisabouts have proved most satisfactory in this service.

Owners are pleased with their Cruisabouts because they're seaworthy and powerful enough to follow or tow their yachts through any blow; have comfortable living accommodations for a crew of four or six husky, able bodied seamen and all kinds of storage space for spare gear.

Write for booklet "E-1" illustrating and describing the Cruisabouts or inspect them at the dealer nearest you. You'll be surprised at the unequalled Cruisabout value.

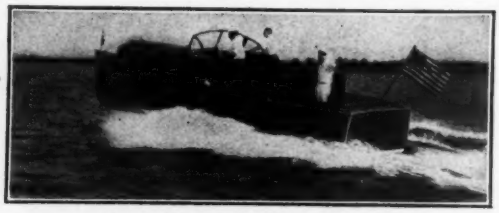
RICHARDSON BOAT COMPANY, INC.
359 Sweeney Street — North Tonawanda, N. Y.

Richardson Cruisabouts

New Johnson 33

SEA SKIFF

3 Smart Models: Single or Double Cabin and Commuter



Commuter—with Flying Bridge—doing better than 30 m.p.h. 33' x 9' x 2'6"

Backed by the well-known Johnson standards of marine craftsmanship, these three new 33-foot models are offered as the last word in design, construction and finish. Single cabin sleeps four; separate dressing room with lavatory; complete galley; interior finish old ivory and mahogany; hull black or white, smooth or lap-strake; powered with 8-cyl. Chrysler; 3-1 gear reduction; speed 28 m.p.h. and better. Double cabin same as above; sleeps six. Commuter, with flying bridge; dual steering; sleeps two or four; complete galley; lavatory. The hull is designed for high powered motors, and can be driven 50 m.p.h. in seaway. Specifications in detail and prices on request. Demonstration by appointment.

Order Now for Florida Delivery

HUBERT S. JOHNSON

Boat and Engine Works, Inc.

27 Westlake Ave.
Bay Head, New Jersey
Penn. Railroad to Point Pleasant
Bus to Bay Head

A real sea-going spark plug!

Robert Bosch Pyro-Action Spark Plugs are sturdy, strong and dependable, with an extra pep that makes a real difference in power and speed. Prove it to yourself by installing a set in *your* boat. Send for Robert Bosch Catalog for motor boats. Robert Bosch Magneto Co., Inc., 3603C Queens Blvd., Long Island City, N. Y.

Robert Bosch Pyro-Action Spark Plugs

All Robert Bosch Products bear the full name "ROBERT BOSCH" and this trademark of Robert Bosch A.-G.

"Half-Mile-Ray"

SEARCHLIGHTS

"Half-Mile-Ray" has more than piercing power; it has sturdiness, dependability, beauty and ease of control.

Standard equipment on Elco, Chris-Craft, Richardson, Banfield and other famous cruisers.

"One-Mile-Ray" for larger boats; "Quarter-Mile-Ray" for outboards.

Write for folder on searchlights for every marine purpose. $10 to $150. Also Northeast "Whistletone" Horns and Sireno Sirens, $7.50 to $50.

THE PORTABLE LIGHT CO., Inc.
12 Warren Street New York City

YARD AND SHOP

(*Continued from page* 124)

CHRYSLER SUBSIDIARY ORGANIZED

A new company known as the Amplex Manufacturing Company has been organized as a subsidiary to the Chrysler Corporation to handle the sales of all Chrysler products, other than finished cars and trucks. E. S. Chapman is the president of the new company, the offices of which will be established in Detroit. Sales activities will be devoted primarily to the marketing of marine engines, industrial motors and Oilrite bronze bearings. H. E. Fromm retains his position as sales director for marine engines and P. J. Hilgendorf has been placed in charge of service.

DETROIT YACHT HARBOR

Facilities for the dockage, storage, and service of a thousand boats are provided for in plans for the establishment of the Detroit Yacht Harbor by a group of prominent Detroit citizens. A site on the Detroit River has been secured opposite the Detroit Yacht Club, comprising 22 acres, with a river frontage of 900 feet. Open and sheltered boat wells of various sizes will be offered, a repair shop, fuel station, supply and equipment stores, and garages for the cars of boat owners while they are away on trips. A display and sales building will also be erected nearby which will serve as a perpetual motor boat show, operated by manufacturers and sales agencies. A club building will be available, offering to owners lockers, shower-baths, and lounge rooms.

ELECTRIC AUXILIARY DRIVE

R. E. Olds has installed a unique system of auxiliary electrical propulsion in his new 93-foot diesel yacht Mettamar. The main engines are a pair of 6 by 10 Hill-Diesels installed in the conventional manner and driving a screw on either side. Between these in the amidships line a third wheel is located which is driven through a Vee-drive reduction gear by a General Electric motor. The motor is installed in a lazarette astern so that no otherwise valuable space is sacrificed. All controls are brought to the pilot house so that it is unnecessary for an engineer to be in attendance at the motor.

ANOTHER DUPLEX USER

Finding that Duplex marine engine oil has given a high degree of satisfaction in the lubrication of the motors which they produce, the United States Motors Corporation of Oshkosh, Wisconsin, has decided upon Duplex as their standard lubricant. They heartily endorse the use of Duplex oil in their motors and affix a plate to each motor shipped from the factory specifying the grade which will insure most satisfactory operation of the motor.

DOCK FACILITIES URGED

Public action, according to Warren Ripple, president of the Johnson Motor Company, must be stimulated to provide better housing and dockage facilities for owners of small boats. He points out that facilities of this sort have not kept pace with the rapid increase in ownership of small craft, there being now almost a million and a half owners of small motor boats in the United States. He cites the excellent progress which Chicago is making in the development of its waterfront and recommends that all other cities where water is available take immediate steps to follow their example.

AUTO CHAMP OWNS HACKER

Billy Arnold, who achieved fame with a speed record of 100.413 m. p. h. in this year's 500-mile race at Indianapolis, is the owner of a Hacker runabout which he has been using on Lake Michigan during the past year. It is powered with a 200 h. p. Kermath valve-in-head engine. A short time ago when Sir W. Douglas Hawkes, British racing champion, came to Detroit to inspect American automobile factories, he was entertained by Arnold with a thrilling 45-mile-an-hour ride up and down the river in Arnold's runabout.

GLOBE CIRCLER INSTALLS DIESEL

Captain Edward Miles, lone rover of the seas, has embarked in a small 37-foot Bermuda schooner, on a second attempt to circumnavigate the globe single-handed. His first attempt ended unfortunately when his boat caught fire and sank in the Red Sea. Captain Miles has installed a Hill-Diesel engine in his new schooner. It is a 25 h. p. motor of the pump injection type and will be used only in emergency or when the boat is becalmed.

Advertising index will be found on 3rd last page

Express Train Speeds

in

HIS MAJESTY'S NEW COMMUTER

IN this 38-foot Packard-powered Hackercraft Cruiser-Commuter, recently built in our custom department for the King of Siam, a new world's commuter record of 63.73 miles per hour was clocked by His Majesty's own representatives over a measured mile course. To the layman this remarkable speed is perhaps meaningless. To the experienced yachtsman, however, such a record for a fully equipped cruiser-commuter becomes an undeniable achievement in design—a great tribute to the practical genius and ability of John L. Hacker, N. A. Thus the gap that has been so effectively maintained through the superior design and unmistakable craftsmanship characterizing all Hackercraft models has been considerably widened by this singular feat of performance. Search the world over—no finer product of skill, ability and careful choice of materials in boat building exists than Hackercraft. Each Hackercraft is built to a very definite ideal . . . repays your faith in a quality product . . . rewards your choice with the permanence of beauty and completeness . . . insures an unfailing performance that serves the ends of speed *and* security.

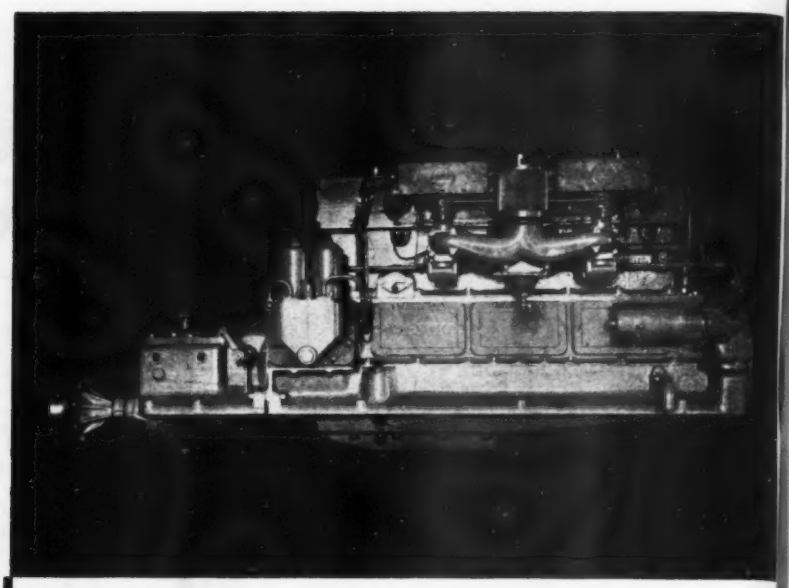
HACKER BOAT COMPANY
530 RIVER DRIVE · MT. CLEMENS, MICH.

ON DISPLAY

New York City—5th Avenue at 15th Street; Boston—1043 Commonwealth Avenue; Chicago—Motor Boat Mart, Navy Pier; Detroit—7433 E. Jefferson Avenue; San Francisco—102 New Montgomery Street; Beverly Hills—8725 Wilshire Blvd.

A complete series of fine Honduras Mahogany Hackercraft await your appraisal.

HACKERCRAFT
AMERICAN SPEED BOATS



H. S. R.-4. 50 H. P. A smooth-running, economical and dependable power plant for cruisers, auxiliary sailing craft and work boats. May be obtained with reduction gears giving reductions of 2:1, 3:1.

H.S.R.-6. 90-100 H. P. Practically free from vibration. Requires but eighteen square feet floor space, weighs only 2200 pounds. Very successful with reduction gear in replacing so-called heavy-oil engines.

H. S. R.-163 and 164. 100-110 H.P. Twin engines designed to allow a true right and left hand installation of the smallest practical size. Reduction gears give a range of maximum propeller speeds from 900 to 256 r.p.m. Suitable for boats up to 100 feet in length.

H.D.-175. 175 H.P. Light reciprocating parts and moderately high speed give the H.D.-175 flexibility impossible to any heavy engine. The cost of engine and reduction gear is very low in comparison with heavy power plants giving same boat speed. Investigate this engine for all installations requiring 175 H.P.

L.M.-6. 200 H.P. Very widely used in fast runabouts, sea sleds and express cruisers in single, twin, and triple screw installations. Smooth running, easy on gasoline and oil, and gives speeds up to forty miles an hour.

HALL-SCOTT
MARINE ENGINES

Hall-Scott engines make good boats better • For cruisers, large or small—for fast runabouts—for express commuters—for houseboats—as auxiliary power in sailing yachts—to replace cumbersome steam or heavy oil plants—whatever the service required there's a Hall-Scott engine designed to meet it.

Here's the Hall-Scott engine for big, powerful cruisers and yachts, the Model H. D. 175. One hundred and seventy-five horse-power at the moderate speed of 1800 r.p.m. Requires only about 9 feet between bulkheads for ample space for engines and controls. Boats powered with this engine show unusually high speeds with marked absence of vibration.

HALL-SCOTT MOTOR CAR COMPANY
Division of American Car and Foundry Motors Company • 21 West 57th St., New York. • *Distributors for Long Island:* Freeport Boat and Engine Co., foot Cornwall Avenue, Baldwin, L. I.

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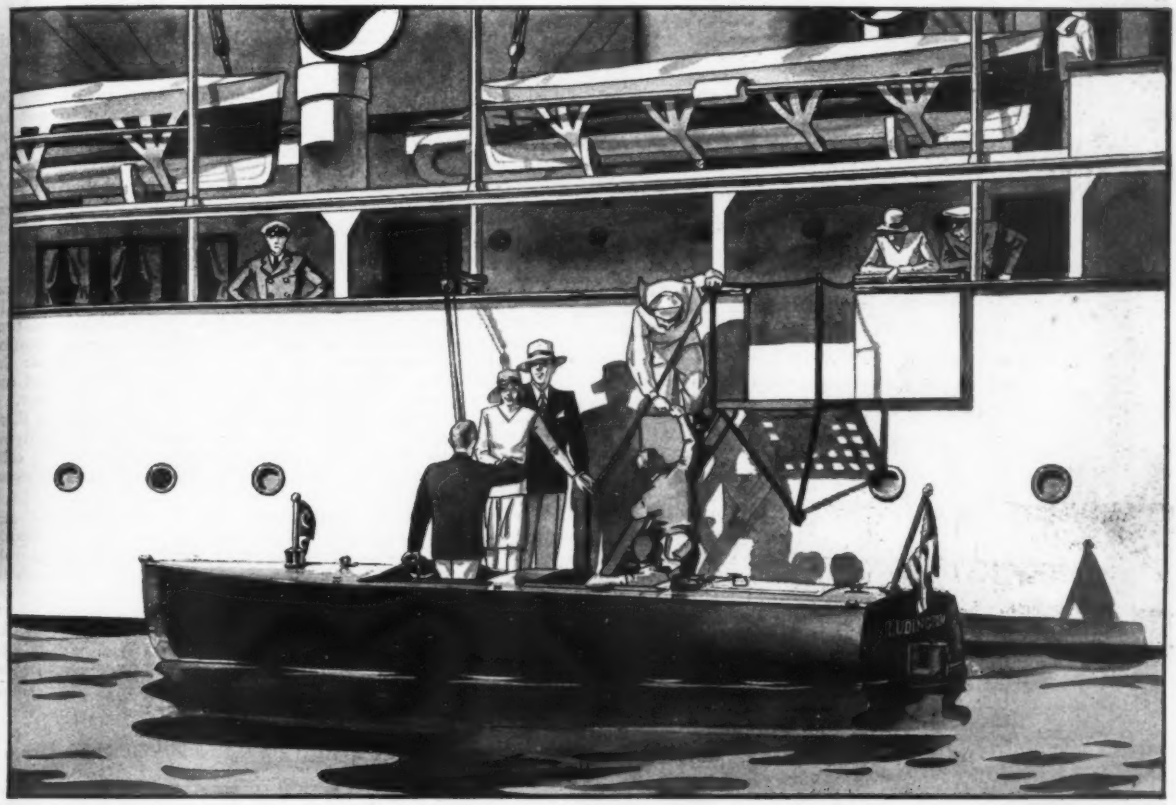

As Tenders . . . As Playboats

LUDINGTON Sportships Lead in Value . . $995

Specific Facts

26 m.p.h. Capacity, 6 persons. 17 feet in length. Beam 62". Height forward, 26". Height aft, 24". Materials—Airplane Spruce, White Oak, Mexican Mahogany. Sturdy, genuine mahogany single plank sides and deck (easier to repair in case of accident). Copper clinched nails and brass screws. Quicker steering control by means of rudderless outboard drive unit. Gray 4-41B, four-cylinder motor. Gleaming mahogany or paint finish.

Auto type steering wheel, starter and control board. Lights fore and aft. Brilliant nickeled-silver bow plate, post light, lifting ring, fender cleats, ventilators, aft cleat, stern pole light. Fully equipped with seat cushions, life preservers, fenders, lines, flags, tools, fire extinguisher, anchor. The Sportship is complete — ready to drive for years of pleasure.

ALL PRICES F. O. B. PHILADELPHIA

Smart as the smartest of yachts, sporting as a heeling yawl—the lean, lithe lines, the brilliant mahogany hulls and gleaming nickeled-silver fittings of the Ludington Sportships will "belong" this winter—anywhere in Southern or Pacific waters!

They're thoroughbreds in looks, in comfort, in performance—true 17-foot inboard runabouts that lead the field in value! Slip into deep, comfortable cockpits forward—the high freeboard is ample protection against flying spray. Head away—and let the rudderless outboard drive unit turn your Sportship at will, sheer right angles port or starboard at full speed! The sturdy Gray under the covered hatch aft delivers silent power—power positively controlled ahead or astern by the new improved drive.

There's pleasure ahead—and real value, if you drive the Sportship or the Sportship Senior. Deferred payments give immediate ownership at moderate monthly cost. See your dealer or mail the coupon for more details.

On display at Port Elco, 247 Park Ave., New York City; Port Ludington, 258 South Broad St., Philadelphia; Wheeler Shipyard, Syracuse, New York, and other convenient locations.

LUDINGTON
AIRCRAFT, INC.
108 Atlantic Building
Philadelphia, Penna.
BOAT DIVISION

Without obligation send me your new catalogue on Ludington boats.

I am interested in
- ☐ Sportships
- ☐ Outboard Racing Craft
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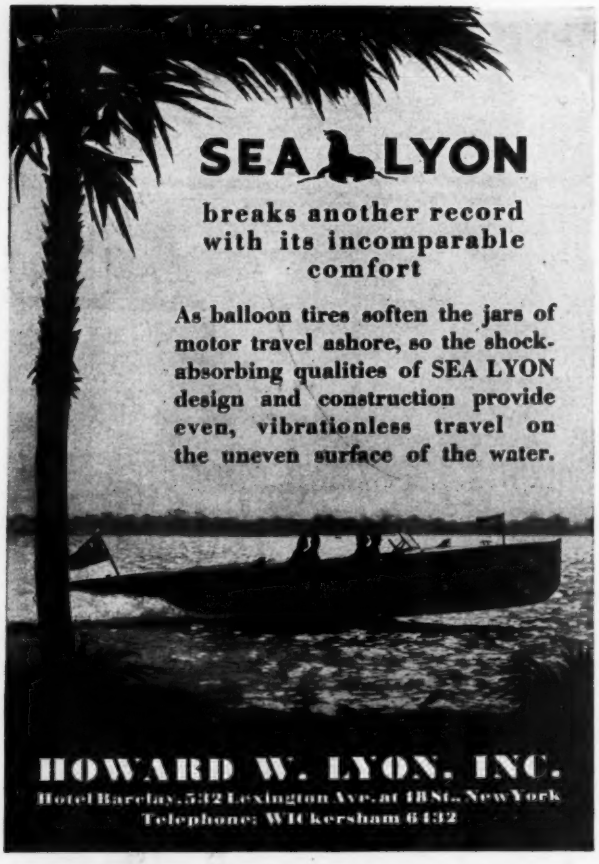
SEA LYON
breaks another record with its incomparable comfort
As balloon tires soften the jars of motor travel ashore, so the shock-absorbing qualities of SEA LYON design and construction provide even, vibrationless travel on the uneven surface of the water.
HOWARD W. LYON, INC.
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Standard and Supercharged "Fours" and "Eights"

Greater Speed with Less Weight

4-CYLINDER MODELS				8-CYLINDER MODELS			
Model	H.P.	Wt.	Price	Model	H.P.	Wt.	Price
"Special"	12-16	325 lbs.	$246-$376	8L	125-135	869 lbs.	$1275
4S	25-30	346 lbs.	$475	8M	150-155	882 lbs.	$1475
4S	30-40	311 lbs.	$495	8LS	*165-170	929 lbs.	$1775
4SS	*60-70	342 lbs.	$675	8MS	*190-200	942 lbs.	$1975

* Supercharged

Write today for catalog.

NIAGARA MOTORS CORP. Dunkirk, New York

KING SEA SKIFFS

The southern cruise in a King Sea Skiff is one round of delightful days and nights at sea. Each boat is built for any sea—any weather, and gives maximum comfort at minimum upkeep.

Visit our plant—see how these famous boats are built—take a ride with us—no obligation on your part

With the finest of workmanship, lap-strake construction, all copper and brass fastenings, ribs of steam bent white oak, heavy spruce bottom and all mahogany trim, this cruiser stands alone in value and performance.

KING BOAT WORKS
Highlands New Jersey

JERSEY RUNS THREE REGATTAS

For the second successive year, Walter L. Haines, of Atlantic City, drove his 750 h. p. speedboat Wings to victory for the Governor's Cup, presented in 1929 by Governor Larson, of New Jersey, at the annual Margate-Longport Regatta August 30. Wings averaged 47.3 m. p. h. for the 12-mile course, to win the Gold Cup, in a close race with William J. McCahan's Florrie, of Ocean City, and John Shibe's Miss Philadelphia, driven by Bill Freitag. Two days later, Wings raced to another victory in the speedboat free-for-all of the Ocean City Yacht Club's fourteenth annual regatta at Ocean City on the waters of Great Egg Harbor, on Labor Day. The Ocean City regatta was the third successive day of racing in the immediate vicinity, Somers Point having staged a regatta on Sunday afternoon.

To cap a fitting climax to his efforts in South Jersey, Ferguson sped around the 6-mile course in the free-for-all division II race at Ocean City in the snappy time of 55 m. p. h., so the timers said, when they clocked him at 6.29 1-5. Ferguson admitted that his boat was running at its best, but he didn't think she was breaking any world's records. [Course probably short and as race was not sanctioned no record can be allowed.—Editor.]

Among the other outboard feats, were the registering of three more conquests for Walter Bew, of Atlantic City, with Flying Fish, in Class B, division II. Bew won the Class B race each day. Incidentally, they were his 20th, 21st, and 22nd consecutive victories in Class B.

In the Margate-Longport regatta, Bill Gumphert, Haines' mechanic aboard Wings, was tossed out of the boat unceremoniously on the second lap of the race, when the boat skidded sharply to make a wonderful turn. Haines didn't miss his pal until he was half-way down the straightaway, and by that time Gumphert had been rescued. Then on the final lap, within 100 yards of the finish, Gumphert went out on the course in another boat, and when Haines slowed down, Gumphert clambered aboard, and finished the race in her. The boat won by a couple of lengths.

John Shibe's Miss Philadelphia presented plenty of opposition for Wings in the early part of the race, holding her even for the first five miles.

Late in the race, W. J. McCahan, of Ocean City, let his Florrie run and overtook Miss Philadelphia on the fifth lap. On the final lap, Florrie moved within a few lengths of Wings, when Wings stopped to take the mechanic aboard. However, Wings was winner, Florrie second; Miss Philadelphia third; Harry Humphreys' Chris, of Atlantic City, fourth; A. D. Pugh's Chris-craft, Arctic Tern, of Ardmore, Pa., fifth; and John Frantz' Old Glory, of Mays Landing, N. J., sixth.

It was not Wings which provided the thrills in the Ocean City event, but McCahan's Florrie. Wings was winner, and Miss Philadelphia took second. Florrie was putting up a wonderful scrap, after a poor start, and threatened to overtake the two leaders, battling nip-and tuck, when suddenly on the second lap, the boat lunged, and tossed out both McCahan, and his mechanic, Charles Hand. Both men swam away from danger, unhurt, while the boat continued to circle around. Pugh, aboard Arctic Tern, finally caught up with Florrie, on its wild gyrations, and boarded her, shutting her engine down before any damage was done.

Earlier in the day Florrie had won the handicap speedboat displacement event from six starters; Pugh's Arctic Tern won the race for stock runabouts under 250 h. p.; and Martess, owned by Steinhart and Weiss, of Ocean City, won the 50 h. p. class.

Among the outboards at Ocean City, Ferguson took three races with his two boats, taking C, D, and the free-for-all for Division II; Bew won Class B, Division II; Ben Risley of Pleasantville, N. J., with Question Mark Too, won Class C, Division III; Johnny Stiles of Ocean City with HyHatter III, won Class D, Division III; and Albert Friedenthal's We, of Wildwood, N. J., won the Division III free-for-all.

In the other Margate-Longport outboard races, Harper Chance, of Port Norris, N. J., with Harbil, won Class C, Division III; Leon Stubbe drove Miss Crane to victory in Class D, Division III; and Harry J. Thurston of Hammonton, N. J., won the Division III free-for-all with Buddy; Ed Hauptner, from City Island, N. Y., won Class B, Division III with Miss Minneford.

In the speedboat races at Margate, Elmer Johnson of Hainesport, Vt., drove Sparrow to victory in the 151 class; and Pugh's Arctic Tern, won the Chriscraft race.

The Somers Point races were sandwiched between the other two regattas, and were held August 31. Ferguson won Class C, Division II, and the free-for-all, Division II. Risley's Question Mark Too won Class C, Division III and the free-for-all, Division III. Bew's Flying Fish won Class B, Division II. Phil Hart's Phi Cly, of Atlantic City, won the 125 h. p. displacement speedboat race; Pugh's Arctic Tern won the 250 h.p. class; and Carter's Restless took the Republican League trophy, in the 8-mile displacement free-for-all.

Advertising index will be found on 3rd last page

KERMATH

The Marblehead "34" is standard powered with 100 h. p. Kermath Six to give 17 m. p. h. Built by Staples, Johnson & Co.

To the mechanically minded yachtsman—the man who wants not mere promises of engine performance but definite concrete evidence that his engine will give him the kind of service he demands—this Kermath 65 and 100 H. P. Six has a wealth of proof to offer in support of the claims we have made for it.

From the standpoint of mechanical refinements—of these advancements that automatically stamp a product with leadership—Kermath is in the ranking position.

Progressive engineering has been as characteristic of Kermath as its widely known reliability and dependability. Here are short descriptions of the units featured above.

1—Valve cover plates with special breathing louvres. These induct air around the valve stems and springs and clean the motor of gasoline vapors. Condensation around the valves when the motor is running cold and oxidation of the oil are thus prevented.

2—The new type back fire flame arrester. Eliminates any possible fire hazard, thus affording protection both to the craft and its occupants.

3—Dual geared water pump with a life 8 times longer than the ordinary type pump. Gear wear eliminated by new type of pump action resulting from dual gear design.

4—Crankcase—deep in section, extremely rugged, with seven bearing statically and dynamically balanced crankshaft.

5—Standard automatic mechanical fuel pump with 25% extra capacity to meet every gasoline consumption requirement. Absolutely dependable in operation.

Write for catalog. Kermath Manufacturing Company, 5879 Commonwealth Ave., Detroit, Mich. 90 King St. W., Toronto, Ontario. New York Show Rooms—5th Ave. and 15th St.

"A KERMATH ALWAYS RUNS"

"Heard—
around the world"

Commanding!

the attention of the marine world.

"In a dense fog, I can get a six second echo distinctly above the local noises of exhaust, wake, etc. I can safely say that this is the best air whistle that I have had experience with."

Master of a large tanker operating up the coast of Alaska

Rugged . . . built of only three parts . . . solid cast bronze.

Amply drained . . . cannot freeze . . . dependable under all conditions.

CUNNINGHAM WHISTLE

Allan Cunningham . . Seattle

Geo. H. Jett, 526 Columbia St., Brooklyn, N. Y.
Fairbanks, Morse & Co., Boston

E. J. Willis & Co., 85 Chambers St., New York
Fairbanks, Morse & Co., Baltimore, Md.

Johnson & Towers, 126 Arch St., Philadelphia, Pa.

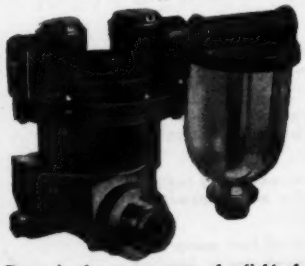
HEADQUARTERS FOR

CORRECT YACHTING UNIFORMS

S. APPEL & CO.

14-18 FULTON ST., NEW YORK

Telephones: JOHN 5382-5389 Catalog on Request



GET A HORSE!

That's what people used to yell at motorists when their cars broke down—which they usually did in the days of goggles and dusters. Today, plenty of motor boats are as unreliable as the cars of 1910—and the source of trouble is usuall the **fuel supply.**

That's why so many boat owners welcome the new Jones Mechanical Fuel Pump. Modern as tomorrow—dependable as the sun—different from other pumps as day is from night—a Jones Pump is the sure means of reliable fuel supply.

It never floods—runs only when engine runs—won't corrode—minimizes fire hazard—always supplies sufficient fuel. Anyone can attach it to any engine easily.

Even if you have some other means of fuel supply, attach a Jones Pump now as an auxiliary for emergencies. Write for details or dealer opportunity.

Jones Mechanical Fuel Pump

JONES MOTROLA SALES CO., 370 Gerard Ave., New York

RESULTS OF PRESIDENT'S CUP REGATTA

Annapolis, Md., Sept. 12 and 13, 1930

President's Trophy—3 heats of 15 miles each
1st—Hotsy Totsy—V. Kliesrath and R. F. Hoyt
2nd—Imp—R. F. Hoyt
3rd—Red Banker—G. Holbrook and J. Banfield
Best time: 1st heat 16:23. Speed 54.933
2nd heat 16:23. Speed 54.933
3rd heat 16:27. Speed 54.711

Secretary of Navy Trophy—2 heats of 15 miles each
1st—Carenaught—C. R. Keyes
2nd—Miss Philadelphia—John Shibe and Wm. Shibe
3rd—Why Not—J. M. Rutherford
Best Time: 1st heat 18:42. Speed 48.128
2nd heat 19.00. Speed 47.368

151 Cubic Inch Hydroplanes, Limited—Race No. 1
2 heats of 5 miles each
1st—Meadowmere II—Chris Ripp
2nd—Miss California—Richard Loynes
3rd—Bay Head II—Chris Ripp
Best Time: 1st heat 5:56. Speed 50.561
2nd heat 6:13. Speed 48.257

151 Cubic Inch Hydroplanes, Limited—Race No. 2,
2 heats of 5 miles each
1st—Meadowmere II—Chris Ripp
2nd—Bay Head II—Chris Ripp
3rd—Miss Buffalo—R. R. Huntley
Best Time: 1st heat 6:45. Speed 44.444
2nd heat 6:36. Speed 45.454

Chesapeake Grand Free For All—1 heat of 10 miles
1st Hotsy Totsy—V. Kliesrath, R. F. Hoyt
2nd—Red Banker—G. Holbrook and J. Banfield
3rd—Why Not—J. M. Rutherford
Best Time: 10:35. Speed 56.692

225 Horsepower Stock Runabouts—1 heat of 10 miles
1st—Becky—J. M. Rutherford
2nd—Bob Jack—R. V. Swartout
3rd—Javega—J. A. Covnalor, Jr.
Best Time: 14:00. Speed 42.857

300 Horsepower Stock Runabouts—1 heat of 10 miles
1st—Why Not—J. M. Rutherford
2nd—Becky—J. M. Rutherford
Best Time: 14:40. Speed 42.654.

Ladies Free For All Race—1 heat of 2½ miles
1st—Why Not—Maud Hughes
Best Time: 3:24. Speed 44.117

Class B, Divisions I and II Outboards—2 heats of 5 miles each
1st—Century Cyclone—B. Davie
2nd—Blah 2nd—P. I. Hottsman
3rd—Silver Fox—W. T. Fox Jr.
Best Time: 1st heat 8:47. Speed 34.155
2nd heat 8:43. Speed 34.416

Class B, Divisions III and IV Outboards—2 heats of 5 miles each
1st—Flying Reds—C. A. Becker, Jr.
2nd—Mercury Too—W. B. Tuck
3rd—Nudine—B. E. Lamb
Best Time: 1st heat 8:25. Speed 35.643
2nd heat 8:25. Speed 35.643

Class C, Divisions I and II Outboards—2 heats of 5 miles each
1st—Century Cyclone—B. Davie
2nd—Blah 2nd—P. T. Hottsman
3rd—Kaydet—Reece Hatchitt
Best Time: 1st heat 7:51. Speed 38.216
2nd heat 9:27. Speed 31.746

Class C, Divisions III and IV Outboards—2 heats of 5 miles each
1st—SJ 28—B. F. Risley, Jr.
2nd—Mercury Too—W. B. Tuck
3rd—Hy Hatter—John Stiles
Best Time: 1st heat 8:00. Speed 37.594
2nd heat 7:55. Speed 37.894

Class F, Divisions I and II Outboards—2 heats of 5 miles each
1st—Hurry—L. Washington
2nd—Century Cyclone—B. Davie
3rd—Three Star—F. Collier
Best Time: 1st heat 7:20. Speed 40.909
2nd heat 7:41. Speed 39.045

Class F, Divisions III and IV Outboards—2 heats of 5 miles each
1st—Mercury Too—W. B. Tuck
2nd—SJ 28—B. F. Risley Jr.
3rd—Buck Baby II—T. Chestnut
Best Time: 1st heat 7:04. Speed 42.452
2nd heat 7:08. Speed 42.056

DUPLEX SCORES ANOTHER VICTORY

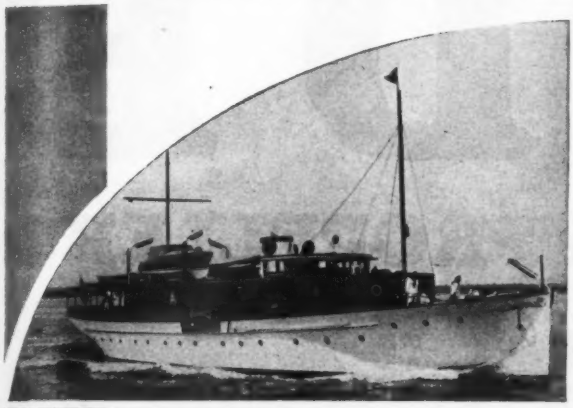
Once again Gar Wood has proved his right to the title of premiere motor boat racing driver of the world by successfully defending Great Britain's attempt to lift the Harmsworth Trophy. A noteworthy feature of Wood's performance was the fact that of the three boats he entered, three finished every heat. Commodore Wood entered his new Miss America IX, Miss America VIII of last year and the old Miss America V which was once the fastest boat in the world. All three were lubricated by Duplex oil which he has been using consistently for the past five years in establishing the high speeds and records for which he is known. Wood's mechanician, Orlin Johnson, stated after the race that maximum oil pressure was maintained at all times and that in their five years' experience with this oil they have never had a minute's trouble.

ENGINE SERVICE MANUAL

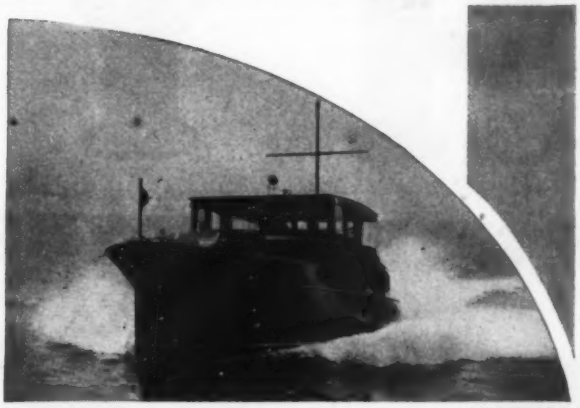
Lycoming have prepared a service manual covering the operation, maintenance, repair and servicing of their marine engines. Other helpful information regarding the repair and operation of motor boats powered by Lycoming is also included.

Advertising index will be found on 3rd last page

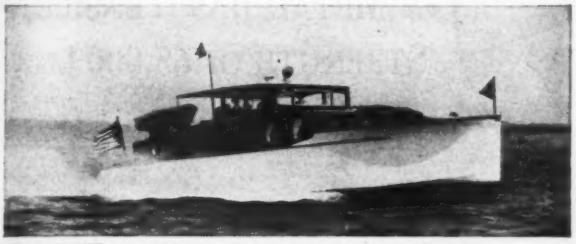
REPRESENTATIVE LUDERSHIPS OF THE 1930 FLEET



KORANETTE, 105′ overall,
Frank D. Hower, Owner

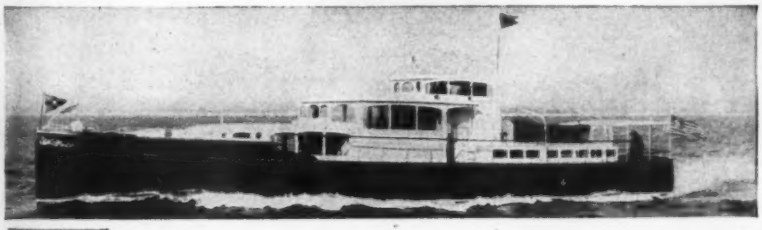


VENUS, 50′ overall,
J. King Reckford, Owner



BAMBALINA, 46′ overall,
Theodore Pratt, owner

GEREDNA, 72′ overall,
Joseph H. Higgins, Owner



CATAMOUNT,
85′ overall,
Bradford Ellsworth,
Owner

PHOENIX, 40′ overall,
Graham C. Thompson, Owner

THE illustrations tell better than words the diversified character of Luderships. While some of our most popular boats are built from standardized designs, all Luderships reflect the owner's individual preferences and requirements as to accommodations, cruising radius, speed and decoration.

Now is the time to plan your Ludership for 1931.

LUDERS MARINE CONSTRUCTION CO. STAMFORD, CONNECTICUT

HYDE

TURBINE TYPE PROPELLERS

"GUARANTEED AGAINST BREAKAGE"

"METAL HAS TENSILE STRENGTH OF 65,000 LB."

EVERY GENUINE
HYDE
BEARS THIS TRADE MARK

WERE USED BY

GAR WOOD

ON

MISS AMERICA IX

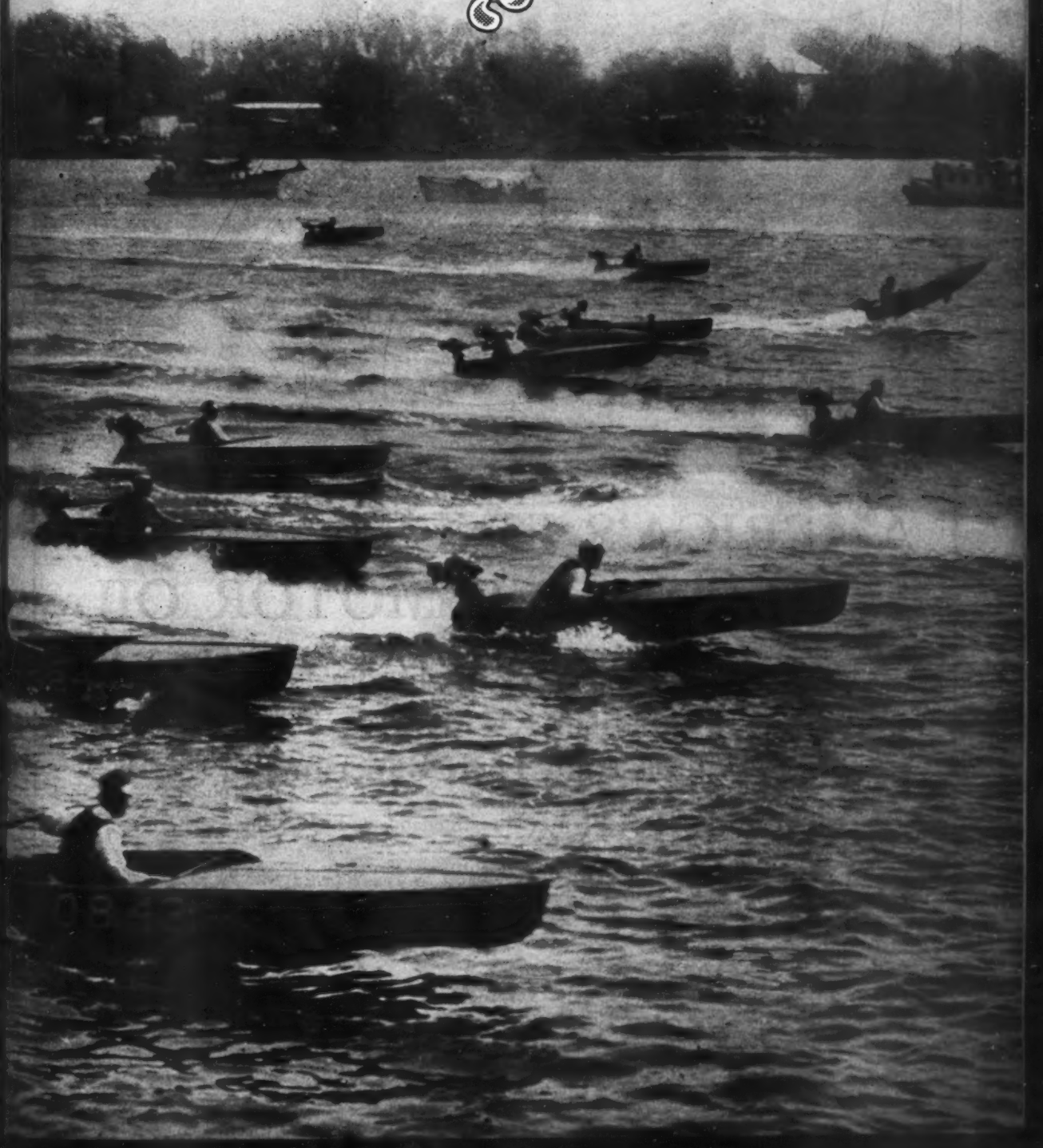
MANUFACTURED BY

HYDE WINDLASS CO., BATH, MAINE

Advertising index will be found on 3rd last page

Outboard MOTOR BOATING

REG. U.S. PAT. OFF.



GULF

Gulfpride Oil

At the Sign of the **ORANGE DISC**

AMERICA'S FINEST MARINE MOTOR OIL

Measured By All Standards of Comparison, Gulfpride Oils Demonstrate Their Superiority

SECURE
Lowered maintenance and operating costs
Smoother operation
Greater assurance of safety

By insisting on GULFPRIDE OILS for your motor

GULF REFINING COMPANY

Advertising index will be found on 3rd last page

Outboard MOTOR BOATING

FIFTY-SEVENTH ST. AT EIGHTH AVE., NEW YORK, N. Y.

Edited by

CHARLES F. CHAPMAN

OCTOBER, 1930

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TAKING BOATS INTO CANADA

Contestants traveling from the States to races in Canada last season got into some difficulties because of their failure to understand the customs requirements.

A letter from the Canadian Commissioner of Customs explains the whole situation. He writes: "motor boats competing for prizes at regattas under the auspices of a bona-fide association will, on application of a responsible official of the association to the Collector of National Revenue concerned, be permitted free entry on Exhibition Form B 18, conditional on exportation at the close of the meet.

"Motor boats imported by either freight or express will go forward to an interior port of Canada in bond for entry on Exhibition Form B 18, but if arriving at a frontier port by highway they would require to be accompanied by a customs officer to the interior port for entry on Exhibition Form B 18. The officers' overtime and expenses would require to be repaid to the department by the person or persons accommodated, otherwise a deposit equal to the amount of duty and tax would be required."

Admission under bond calls for a report on Form E-29. The amount so deposited at time of entry is refunded at time of return.

Drivers can avoid difficulty at the border by writing to the Customs Division, Department of National Revenue, Ottawa, Canada and obtaining the required forms before leaving home.

LIPTON REGATTA WON BY SARASOTA

Every year well known sail boat racing skippers from yacht clubs associated with the Gulf Yachting Association meet in competition for the prized Lipton Trophy which has on several different occasions been in the possession of the Pensacola Yacht Club. In ten regattas the Pensacola skippers have succeeded in winning the trophy four times and on two other occasions have tied for it. This year the laurels passed on to the Sarasota yachtsmen although the Pensacola representatives made a strong bid for the honors.

In four races which constituted the series Sarasota succeeded in taking one first, one second, one third and a sixth which gave it a total of twenty points as against eighteen for its nearest competitor, the Eastern Shore Yacht Club of Mobile. Pensacola was third with sixteen points, while St. Petersburgh, New Orleans and Biloxi tied for fourth place with thirteen points each. Houston was last with eleven points.

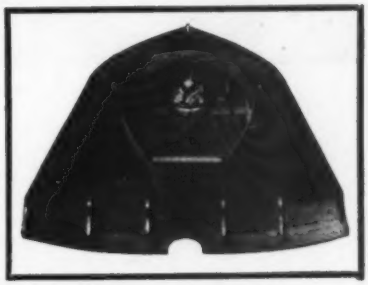
The Sarasota victory marks the first time in eleven years of Gulf coast racing that this city has been able to take possession of the Lipton Trophy. It might have been an entirely different story had Pensacola not been disqualified in the first race and lost its scoring on the strength of a technical foul.

SPEED, DEPENDABILITY and BEAUTY at LOW COST

"LOW COST"
Family or Fishing Boat

A trim, dry, all-purpose, easy-to-paddle boat. Length, 14 ft., beam 44 in.; weight 165 lbs. Takes any outboard motor. Seats 6 passengers. Furnished with mooring ring and oak locks. Prices: (standard model) $95, (de luxe model) $110.

NOW everyone can enjoy motor-boating! We have perfected a line of craft—"WATER BOSS"–that both lowers the cost of boats and increases their speed, safety, and dependability! We are concentrating routine production on two models: the "LOW COST" (see view above), an all-purpose boat with oak frame and cypress bottom and sides, to take any outboard motor and sell as low as $95; and the "ROCKET" Racing Hull (see view below) with oak frame, and Honduras mahogany bottom, sides, and rear decking, to sell as low as $225. All boats waterproofed inside and out with aircraft clear varnish; all fastenings copper and brass; delivered fully equipped. Until you've tried a "WATER BOSS" you haven't enjoyed all your money will buy. Write for descriptive literature.



"ROCKET"
Racing Hull

The fastest, sturdiest racing hull ever built. Class "A" Model (also suitable for "B" motors) length 10 ft., beam 46 in., weight (standard model) 100 lbs., weight (optional special model) 70 lbs. Classes "B", "C", and "D" Model, length 11 ft. 5 in., beam 50 in., weight (standard model) 150 lbs., weight (optional special model) 100 lbs. Class "F" Model, length 11 ft., 10 in., beam 50 in., weight (standard model) 190 lbs., weight (optional special model) 135 lbs. Prices: "A", "B", "C", and "D" Model, $225; "F" Model, $250.

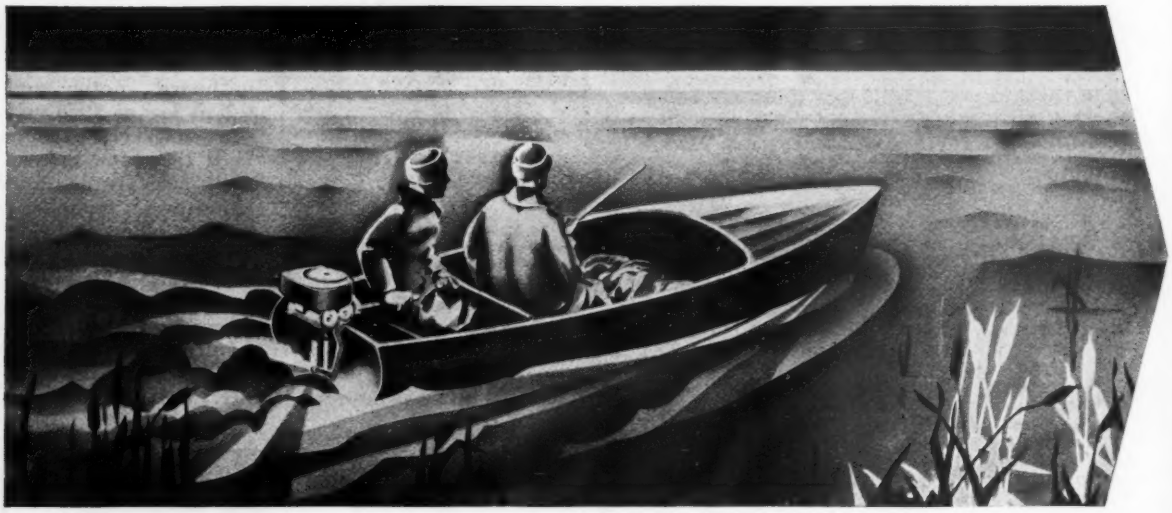
WATER Boss

SOUTHERN AIRCRAFT CORPORATION
BOAT DIVISION
Bessemer Boulevard
BIRMINGHAM, ALABAMA

A horse for work
A pony in weight

A hate for unnecessary weight is born in every sportsman.

To have a boat like a pumpkin-seed and a motor that weighs no more than a watch is his ideal. The out-board motor goes far to accomplish this result—strong to carry on to any port; light to carry on a long portage.



—and the greatest contributing factors to this strong light motor are the Alloys of Alcoa Aluminum developed particularly for the purpose. On certain parts of out-board motors where extreme strength and maximum resistance to salt water corrosion are needed, Alcoa Alloy 195 is the only satisfactory solution. It carries not an ounce of surplus weight . . . it's as lean and strong as an athlete . . . weighs only ⅓ as much as iron or steel.

Know this new alloy No. 195 by name. Ask for the Alloys of Alcoa Aluminum and Lynite Pistons. ALUMINUM COMPANY *of* AMERICA; 2487 Oliver Building, PITTSBURGH, PENNSYLVANIA.

ALCOA ALUMINUM

Advertising index will be found on 3rd last page

OCTOBER MOTOR BOATING 1930

THE NATIONAL OUTBOARD CHAMPIONSHIPS

To Be Held Under the Auspices of Connecticut River Regatta Association and National Outboard Association at Middletown, Connecticut, October 12 and 13, 1930.

For Outboard Championships of America and World Records

RACES for Classes, A, B, C, D, E and F, Division I, II and III Drivers, Stock Motors. Division I Drivers compete in and as Division II, Division III competing by themselves. Open to Drivers who have placed first, second or third in a race sanctioned by the American Power Boat Association or the Mississippi Valley Power Boat Association, during 1930 and racing same or identically similar motor and hull and qualifying under Rules for National Outboard Championship. Elimination heats of five miles each in each class where more than twenty drivers are entered. Two heats of five miles each in final events.

Entries of those qualified to compete for the National Outboard Championships must be received by Phelps Ingersoll, Box 1215, Middletown, Connecticut, or George O. Hoehn, Executive Secretary, National Outboard Association, 201 North Wells St., Chicago, Illinois, not later than October 6, 1930. No entries will be accepted after above post mark date.

On Saturday, October 11, the Eastern Divisional A. P. B. A. Championships will be held on the same course. These championships are open to any driver enrolled in any club which is a member of the A. P. B. A. Obtain Entry Blanks from Phelps Ingersoll, Middletown, Connecticut.

GENERAL INSTRUCTIONS

Entries must be made on an official entry blank provided for the purpose, completely filled in with all data requested and signed by entrant or driver before filing.

All entrants for the National Championships must report and register at Middletown Yacht Club between noon and midnight on Saturday, October 11, 1930.

Every boat must have a racing number painted on both sides of the boat. Names, if any, must be confined in a space within three feet of the boat's stern. Boats without proper racing number cannot start.

All drivers must attend a drivers' meeting at the Chaffee House Saturday evening, October 11, at 9:00 P. M.

All entrants must be a member of some Club affiliated with the American Power Boat Association, Mississippi Valley Power Boat Association or National Outboard Association.

Each race for each class will consist of elimination heats of 5 miles each around a 2½ mile course as provided by section 8 and two final heats of five miles each. Actual starting times will be announced at the Drivers' Meeting.

Drivers must race only the same or similar outfits used by them in a sanctioned race during 1930. The entry blank must contain full information as to this outfit.

All boats finishing must report immediately to the Inspection Committee at a place to be announced at the Drivers' Meeting and must remain with that Inspection Committee until released. No mechanical work can be done on motors or boats without permission from the Inspection Committee.

If you are in doubt as to whether any past race in which you competed was duly sanctioned by the American Power Boat Association or Mississippi Valley Power Boat Association, you should confer with A. T. Griffith, 337-8 Hippodrome Building, Peoria, Illinois, or C. F. Chapman, 959 Eighth Avenue, New York, N. Y., for certification. Do not assume the race in which you competed was a sanctioned one unless you know same to be a fact.

RACING RULES—Racing Rules of the National Outboard Association, as approved by the American Power Boat Association and Mississippi Valley Power Boat Association shall govern. The actual supervision of the races shall be vested in the Club or Association handling the races as designated by the National Outboard Racing Commission.

WINNERS—Entrants shall register with the Local Race Committee at a time and place designated by the Committee. In those classes where more than 20, but less than 40, drivers register, the Committee shall divide (by lot) the contestants into groups of not over 10 drivers each, designating the group as follows: Group I, Group II, Group III, etc.

An elimination heat of 5 miles shall be held for each group. Only those drivers finishing first, second or third in their elimination heat shall be permitted to compete in the championship events.

Where more than 40 drivers register, the Committee shall divide (by lot) the contestants into groups of not over 15 drivers each, proceeding as above, except that only 1st, 2nd and 3rd place winners may compete in the championship events.

The best total elapsed time for the two final heats shall decide the winner in each class. Second and third places shall be decided the same way.

Note: "The winners of 1st, 2nd and 3rd places in the Eastern, Central and Western Championship regattas, in each of the classes, will not be required to compete in any elimination heat."

PRIZES—The prizes shall be those presented by

(*Continued on page 152*)

LOOKING INSIDE THE OUTBOARD ENGINE

What Goes On In the Cooling System of the Modern Outboard Engine With Explanations of Various Methods Employed

By P. A. TANNER, M.E.

Part VIII

ALL the energy which enters an engine as fuel must appear again in some form. The fuel represents potential chemical energy. When it is burned this is turned into heat energy. The heat is partly converted into mechanical energy and the rest is wasted.

In a large gas engine working at full load the energy of the fuel is released about as follows:

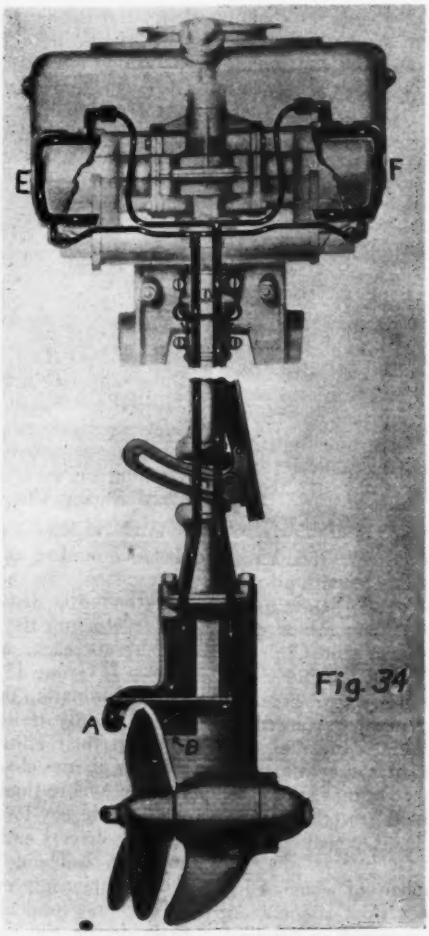
Useful work (horse power)	24 per cent.
Friction	4 per cent.
Exhaust heat	40 per cent.
To the cooling water	28 per cent.
Radiation	4 per cent.

A small two cycle outboard motor is not nearly so efficient as this however. Consider again the Class B motor running at 4,000 revolutions per minute and developing 12 horse power, mentioned under Carburetion. This uses 9.6 pounds of gasoline per hour. At 20,000 heat units per pound, this represents 192,000 heat units of energy. But the 12 horse power developed represents an equivalent of but 9,336 heat units which is only 4.85 percent! This is known as the Thermal Efficiency of the engine and is very low compared to large power plants of either the steam or internal combustion engine types. A good diesel oil-burning engine at full load may have an efficiency as high as 30 percent or more. And the engine covered by the above heat-balance figures has an efficiency of 24 percent. Many steam locomotives, however, do not run higher than about 5 per cent.

No complete heat-balance of an outboard motor is available, in fact it is quite likely that none has ever been made. In view of the very low efficiency, however, it is apparent that 95 per cent. of the energy wasted and must be accounted for. Perhaps the following rough estimate is not greatly in error:

Useful work (horse power)	5 per cent.
Friction	5 per cent.
Exhaust heat	50 per cent.
To the cooling water	35 per cent.
Radiation	5 per cent.

Seven times as much energy must be carried away in the cooling water as is delivered in useful work. Everyone is familiar with the fact that if only a part of the horse power is wasted through the high friction in a tight bearing, for example, that bearing can get very hot very quickly. It is evident, therefore, that if the cylinder is not cooled, and this 35 per cent. of the total energy (heat) carried away, it would get so hot that the mixture would be ignited, the lubrication would break down, and it would be impossible to operate the engine at all.

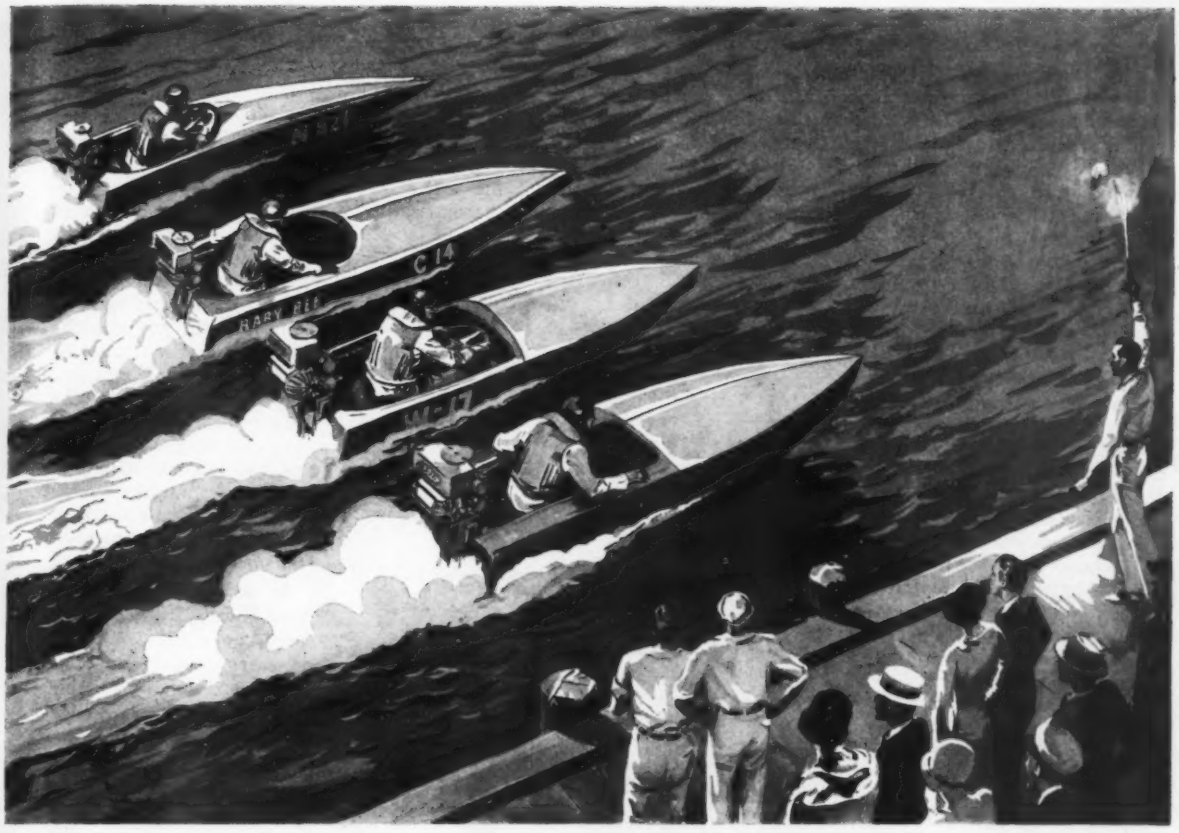


The pressure-vacuum system of water circulation employed on Johnson outboard engines

Many airplane engines are cooled by the direct blast of air against the cylinders. The Franklin automobile engine is air-cooled by a blast from a fan. Most automobiles are indirectly air-cooled; water in the jackets is circulated through a radiator and there cooled by a draft of air.

The outboard motor is invariably water cooled and the supply of water is unlimited from the lake or stream through which the boat is driven.

Part of the heat of combustion is absorbed by the cylinder head, the cylinder walls, and the piston. That heat which enters the piston is transferred to the cylinder walls with which it is in contact. Both the head and the cylinder bore are usually surrounded with water jackets to remove this heat. The jacket around the cylinder bore is usually extended to a point just below the top of the piston when it is on lower dead center. In larger motors the jacket must be extended below the exhaust port to affect satisfactory cooling of the cylinder walls at



LET 'ER GO! WHO-O-OM!

Have you ever heard a four-cylinder racing Elto Quad open up and really get down to work? Speed. Man! And Elto knows that for *real* speed battery ignition can't be beat. That's why Elto specifies Eveready Dry Batteries. They'll flash flaming, hot sparks for months and months. The Eveready Hot Shot is *waterproof*. A strong steel case protects it from scuffs and knocks.

In three sizes, 6, 7½ and 9 volts. Eveready Dry Cell No 6 is 1½ volts.

The Eveready Hour, radio's oldest commercial feature, is broadcast every Tuesday evening at nine (New York time) from WEAF over a nation-wide N. B. C. network of 31 stations.

NATIONAL CARBON COMPANY, INC.

General Offices: **New York, N. Y.**

Branches: **Chicago Kansas City New York San Francisco**

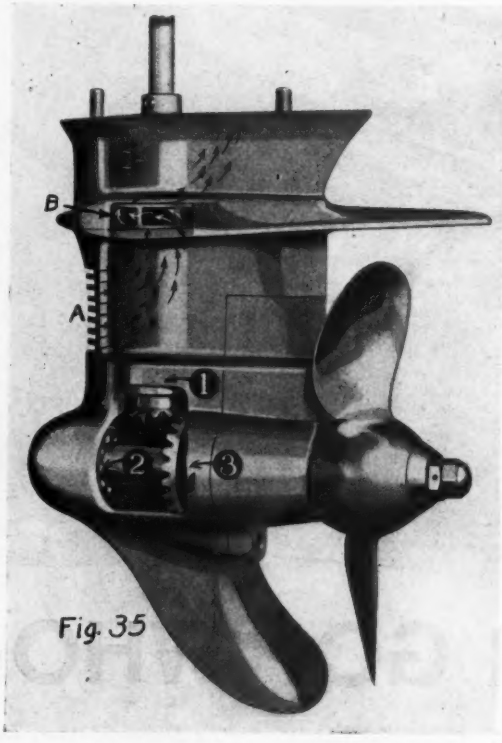
Unit of Union Carbide UCC and Carbon Corporation

that point as well as to provide for piston cooling. It has already been explained that it is important, too, that so far as possible metal connections or bosses between the metal of the cylinder and the metal of the jacket wall should be avoided as they will not permit uniform expansion of the cylinder.

In a number of successful motors the cylinder head is not water jacketed. The diameter of the head is small and the heat is conducted from the hot center to the edge which is in contact with the water jacket which surrounds the cylinder. It is claimed that this hot head serves much the same purpose as the hot-spot on the manifold of an automobile engine — helps to thoroughly vaporize the fuel. Undoubtedly, it saves weight. The top of the piston is the hottest surface inside the combustion chamber so that with adequate provision for controlling that it is relatively unimportant that the cylinder head is also hot. Perhaps the principal disadvantage of the hot-head design in smaller motors is that the operator may get burned if he touches it.

It is also extremely important that the spark plug be adequately cooled. It is therefore now common practice to provide water jacketing entirely around the spark plug boss even though the cylinder head itself is without a jacket.

It is advantageous to force the water through the jackets at considerable speed. This provides a scrubbing action over the hot surface of the cylinder which prevents the formation of a thin layer of steam or air bubbles either of which retard heat flow. Likewise, the engineer must guard against pockets in the jacket spaces where steam pockets might form or from which it would be difficult to drain the water when laying the motor away in freezing weather.



A method using an impeller on the vertical shaft as supplied on Caille engines

Many outboard motors are used in salt water. If two metals of different electro-chemical action are placed in contact in a solution such as salt water, a weak galvanic battery is formed similar to the old well-known crow-foot wet battery employing zinc and copper in a solution of blue vitriol. The weak electric current formed carries metal from one part to the other. Serious corrosion may result. For this reason it is necessary that some care be exercised in the selection of materials for the cooling system. It is not wise, for example, to screw a brass pipe fitting into aluminum, or to use a brass plunger pump supported by an aluminum casting. There is but little action between cast iron and brass.

In the older outboard motors water for cooling was circulated by means of a plunger pump usually mounted just above the propeller shaft and driven by an eccentric on the propeller shaft within the gear housing. This method has the advantage of being positive. The water is forced through the system. But certain disadvantages have led to its being almost entirely displaced by other means.

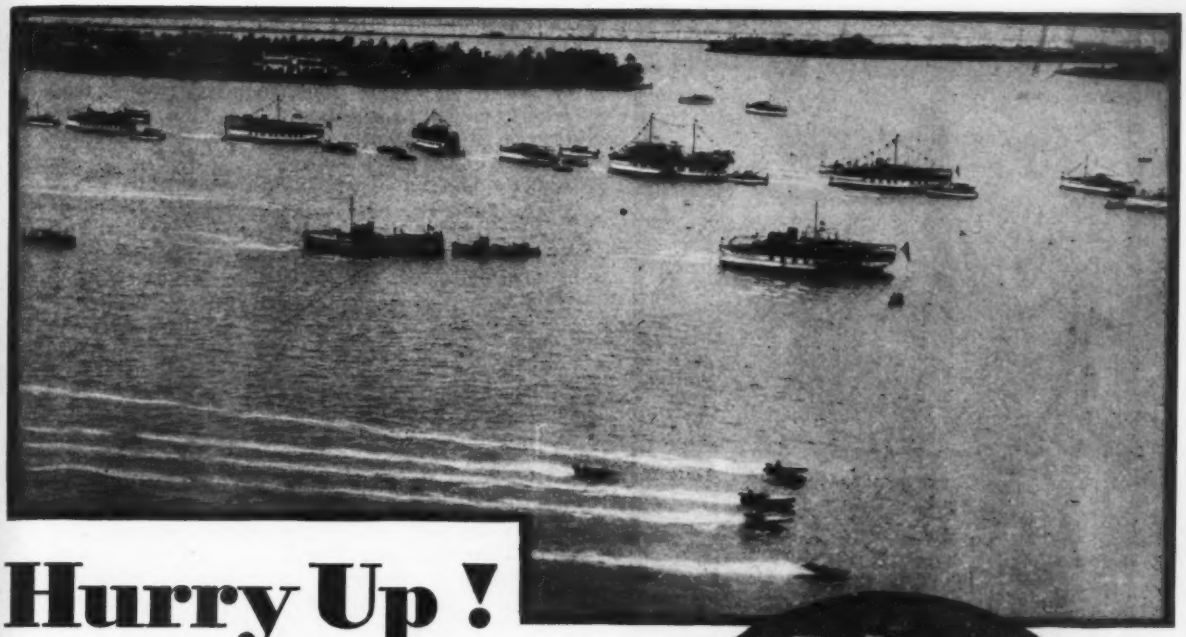
The plunger pump must have valves. These are usually steel or bronze balls resting on the bronze seats machined into the body of the pump. These valves wear in time. But more serious is the fact that if the water is sandy or dirty, it may prevent the valves from seating. Such foreign matter also wears the pump plunger and cylinder rapidly. The grease in the gear case has a tendency to work up past the pump plunger and clog the passages in the pump or pipes and unseat the valves. The lower end of the plunger extending into the gear case and working up and down rapidly has a tendency to pump the grease out of the case making rather frequent replenishment necessary.

If outboard motor boats were always driven at high speed, no pump would be necessary at all. The scooping action of suitable orifices on the forward edge of the gear case would provide plenty of pressure to carry the water through the system. If a boat is traveling 10 miles per hour, the theoretical pressure created against the forward edge of the gear housing is 1.45 pounds per square inch, sufficient to raise the water to a height of 3.34 feet. But if the boat is going three times as fast, the pressure is nine times as great — 13 pounds per square inch, raising the water 30 feet. At less than 10 miles per hour this pressure is hardly to be relied upon; at higher speeds it is so high that the water outlets from the cooling system must be restricted to prevent over-cooling. This pressure is used, however, in combination with other means as will be seen.

Figure 34 shows the Pressure-Vacuum system as used in Johnson motors. Just behind the tip of the propeller blade is a scoop A. Another opening B is cast into the housing just ahead of the tip of the propeller blade. The former, A, is the water intake, and the latter, B, is the outlet.

When the propeller turns rapidly in the water, it forces the water backward—to the left. This column of water is moving faster than the boat is moving forward. It is evident, therefore, that water is moving past the opening A at somewhat greater speed than the motor—and boat—is moving forward. This velocity creates pressure at A and some water is forced into the opening. At the same time, there is suction at B. This is created not only by the forward motion of the housing through the water, but also by the fact that there is always some vacuum on the forward side of the propeller blade.

The combination of pressure at A and the suction at B sends the water upward through the pipe C to the



Hurry Up ! Let's go FASTER !

is the theme-song sung by the purring rhythm of powerful engines in fast motor boats. Faster and faster they go. New records . . . new winners. To what end? Not speed alone, but for the perfection of boat and engine construction and engine maintenance.

It is not strange that almost every motor boat race in any class, results in a win for Empire Penn-Drake Oil. Most racers know that their chances of winning are better if they use that dependable oil. The terrific heat of racing—of tireless straining—of heavy loads will not break it down. It retains its body and therefore, insures lubrication. Its cost is the lowest per mile. It permits easier starting and smoother going.

There are three grades to meet the requirements of every craft—each being especially refined for marine use.

THE WINNING OF RACES WITH PENN-DRAKE OIL TELLS ALL MOTOR BOAT OWNERS THAT HERE IS THE MOST CERTAIN LUBRICATION FOR ANY CRAFT . . . FAST OR SLOW.

Among the many races won in 1930 with Penn-Drake Marine Oil are: The Miami Regatta (Amateur Championship of North America), Worcester Regatta, Westerly, Camp Slocum, Newport, etc.

PENN VALLEY REFINING CO., INC.

BOSTON WORCESTER MIDDLETOWN

312 Broad Street, PROVIDENCE, R. I.

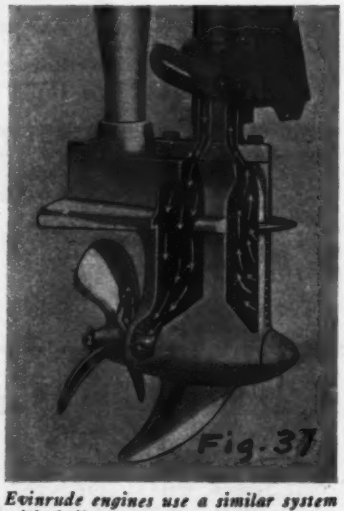
Refineries: Titusville and Karns City, Pa.

The cooling system used on Lockwood engines with discharge openings in propeller blades

power head, through the cylinder jackets E and F, and back down the pipe D to the opening B.

This system is not entirely dependent on the speed of the boat and motor through the water. If a heavy boat or load is being pushed at comparatively slow speed, the propeller slippage is greater and the velocity of the water past the openings is relatively greater than the boat speed. The pressures do increase however, roughly as the square of the propeller speed, and consequently, while the pressures may be quite high at high boat speeds, they are relatively low at slow speeds and if a motor is to be operated at very slow speeds as in trolling, some care must be exercised to see that circulation is maintained. In order that the pressure at A and the suction at B may remain more constant at slow speeds, it is customary to equip the motor with a three-blade propeller. Under racing conditions the more efficient two-blade propeller is used and sometimes the scoop may be removed entirely and the velocity of the motor housing through the water be relied upon for circulation.

One great advantage of this system is that no new moving parts are needed—weight, cost, and complication are reduced. However, the scoop A does offer some resistance in the water and the opening B may prevent the design of a perfect stream-line in the housing. Again, the close proximity of the castings at A and B to the rapidly moving propeller blades causes a little depreciation in the propeller efficiency as a whole and may give the whole motor—if of the swivel type—a tendency to pull sidewise on the tiller handle. The construction is nearly ideal from the standpoint of simplicity and is very successful.



Evinrude engines use a similar system with hollow propeller blades, and a different arrangement of passages

Figure 35 shows the Caille method of using a centrifugal pump for circulation. In this case, the pump impeller B is attached to the vertical drive shaft and enclosed in the casing near the top of the stream-line housing. Openings are provided in the forward edge of the housing at A and a suitable passage is cast into the housing for leading the water to the center of the impeller. Here it is forced upward through a pipe, through the cylinder jackets, and discharged overboard through a tail-pipe.

The centrifugal type of pump depends on velocity to create pressure. It has been seen that the resultant pressure varies as the square of the velocity. This type of pump, therefore, must have large excess capacity at high speeds in order that it may have sufficient capacity at slow speeds. The impeller is usually placed on the drive shaft instead of the propeller shaft because the drive shaft runs faster (there is a gear reduction beween the two shafts) and because it is possible to give the impeller sufficient diameter there without causing too much resistance to forward passage through the water. This type of pump may not be placed very far above the water supply, however, as it will not then start readily.

Here again the pressure created by the passage of the motor housing through the water is used to assist the pump in circulating the water through the cooling system. Both the pressure at A and that created by the impeller are dependent on velocity. Unless carefully designed with plenty of excess capacity, this type of cooling system may be deficient at slow speeds, particularly if weeds or other matter should partially cover the openings at A.

Figure 36 illustrates the system used on Lockwood motors. Water enters the openings A in the forward edge of the gear housing and passes through suitable channels to a pipe leading up to the power head water jackets. The water returns through another pipe C into the channel or chamber E which connects at F with the forward end of the hollow propeller shaft, then through the hole G into the hollow propeller hub H, and outward along channels cast in the propeller blades.

Four forces act on the water in this system to cause it to circulate. First, it is the pressure at A caused by the velocity of forward motion through the water.[9] Second, the rapidly whirling columns of water in the passages in the propeller blades are acted upon by centrifugal force and are thrown toward the outlets thus creating suction in the propeller hub. Third, the vacuum that always exists on the forward side of the propeller blade tends to draw the water from the passages. Fourth, there is an ejector action at the openings in the blades caused by the friction of the water still within the opening against the water just outside the opening tending to draw the water from the passages.

Owing to the comparatively great

(*Continued on page* 156)

A Worth-while *Boating Vacation*

Photo by Rosenfeld

We cordially invite you to visit our plant at Middletown, Connecticut, during National Outboard Championships — October 11-13

October is the ideal time to plan a trip to Connecticut. The wonderful foliage on the wooded hills, the beautiful vistas on the Connecticut River — these make a trip worth while. You will enjoy the hospitality and the sports of the Connecticut Valley. You will see the leading outboard drivers from the Pacific to the Atlantic Coast competing in the National Outboard Championships—drivers from Maine to Florida competing in the Eastern Divisional Championship.

Here are some improvements on the W-C Corbin Tachometer, shown below, that make it even more efficient than before. It has a new elbow gear section with double ball bearing and extra large balls together with a new crank shaft nut assembly. Note that it has the distinct advantage of a maximum speed hand. For additional information write Wilcox, Crittenden & Company, Inc., 4 So. Main Street, Middletown, Connecticut.

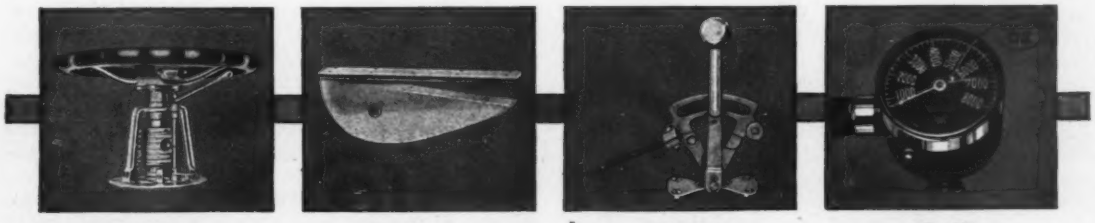


Fig. 905
Mason Outboard Steerer vertical type

Fig. 898
Outboard Fin detachable type

Fig. 8757
Remote Control for Outboard Motors

Fig. 897
W-C Corbin Tachometer equipped with adjustable bracket

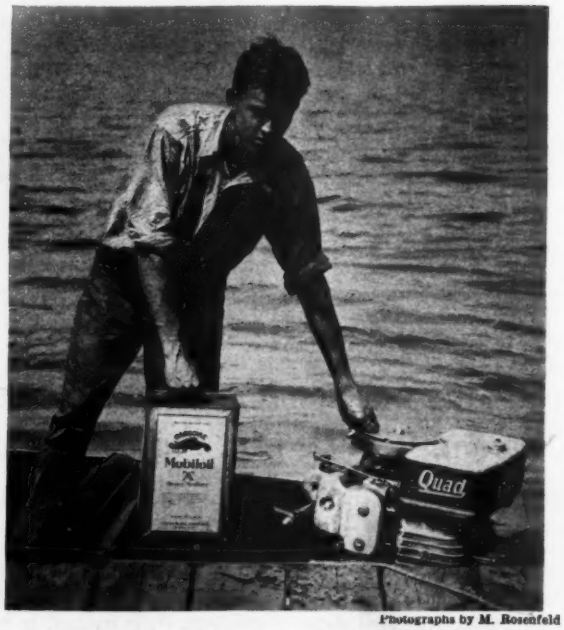
Est. 1847

Wilcox-Crittenden *Dependable* Marine Hardware

FOURTEEN DAYS TO MIAMI

Frank Morley Drives Sixteen Foot Harpoon Runabout With an Elto Quad from New York to Miami in Fast Time

THE evening of August twentieth saw the arrival in Miami of a lone traveler who had just completed a strenuous trip from New York in a small boat with an outboard engine. Frank Morley, the lone wanderer, left New York early on the morning of August sixth and consumed a total of 14 days, 16 hours, and 14 minutes to make the long run. He used for this a stock Harpoon runabout built by Pratt, Read and Company at Deep River, Connecticut, and powered with a 4 cylinder Elto Quad. The boat, sixteen feet in length, carried its standard equipment of cushions, lights, and covers as well as many additional items. These included oars, a compass, a St. Clair automatic bailer, a 40-gallon fuel tank, two electric autopulse pumps, an additional air pressure arrangement as well as an Elto lightweight for emergency purposes.



Photographs by M. Rosenfeld

Frank Morley at the start of his run to Miami stowing the Mobiloil which he used en route

After some tests on the Connecticut River the boat was declared ready and made the 122-run to New York in four and three-quarter hours. A few days were spent in New York assembling the final details of equipment and watching for favorable weather. In order to avoid the tolls on the canal and the restrictions in speed the start from New York contemplated an outside run to Norfolk. Weather conditions were favorable, although a left-over sea made the going very wet, and in the vicinity of Beach Haven on the Jersey Coast troubles developed. Two days were lost here with the remainder of the run to Cape May being made on the inland route. When part way across Delaware Bay in the dark further difficulties developed and the boat made shore on two cylinders. Not having other means of getting to shore Morley anchored the boat and waded in to spend the rest of the night in camp. A heavy fog the following day did not clear until late in the afternoon, so that the time between was used to clear the motor of water collected in the heavy going of the previous day.

Continuing south from Lewes, Delaware, fairly good progress was made until Morley reached Oceanview. For several miles here the route goes through a canal with a depth of only 18 inches and a bottom covered with logs. It was necessary to pole the boat through this to avoid damage. This resulted in considerable delay although Ocean City was finally reached.

At Ocean City the motor was attended to and the trip continued to Chincoteague, Virginia, which was reached before noon. At this point the voyage was continued on the ocean to Chesapeake Bay and although the going was wet, good time was made. Some 20 miles outside of Norfolk, the big motor developed trouble making it necessary to resort to the lightweight to get to port. Naturally the small motor could not produce the same speed as the large one so that the going was most uncomfortable. After about five hours of continuous running, Norfolk was finally reached about 10:30 in the evening. Repairs consumed several days' time and it was not until the evening of the Tuesday following that the boat got under way again. The Albemarle and Chesapeake Canal was used below Norfolk and while this was smooth, parts of the rivers traversed were choppy and darkness overtook Morley before he was ready to stop. He missed the channel several times and had to stop to replace shear pins, which was difficult in the dark as he had to hold a flashlight under his chin in order to have both hands free. He finally tied up at Coinjock. He planned to reach Beaufort, N. C., 163 miles further, during the next day and started at daylight. Excellent conditions were encountered until Albemarle Sound was crossed. Strong winds in the Alligator River slowed him up at times.

While in the cut between the Alligator and Pungo Rivers the motor struck a piece of submerged wood. It struck parallel to the grain and splintered to such an extent that the water intake was plugged solid with wood. It was necessary to remove the lower housing and with a great deal of patience remove all the splinters and float out particles which could not be reached otherwise. The going beyond was so rough and wet that Mor-

(*Continued on page* 158)

Morley's New York-Miami run with Mobiloil longest on record

Frank Morley in his stock outboard runabout "Harpoon"

FRANK MORLEY relied on Mobiloil for correct lubrication of his sturdy Elto Quad in his recent record-breaking dash from New York to Miami.

In spite of adverse weather conditions, the plucky young pilot drove his "Harpoon" outboard over the 1600-mile course in the fast time of 14 days, 16 hours, 14 minutes. This is the fastest time ever made for the run from New York to Miami in an outboard.

—and in leading regattas

At Lake Elsinore, Cal.—Aug. 17 to 31—Four first places went to Mobiloil and four more American Records fell to Mobiloil pilots.

At Detroit—Aug. 29 to Sept. 1—Mobiloil again swept the field with 11 firsts, 10 seconds and 7 thirds.

Ask for the oil the winners use, wherever motorboats are raced. For more power, less wear, carbon and ring-gumming, specify Mobiloil by name.

LOOK FOR THIS SIGN

Mobiloil

VACUUM OIL COMPANY · 61 Broadway, New York City—Branches and distributing warehouses throughout the country.

Lee Washington, Jr., of Atlantic City, winner of the Class F race, divisions I and II. He made 41 m.p.h.

Photographs by M. Rosenfeld

THIRD GREENWOOD LAKE REGATTA

Rough Water Allows Only One New Record, Which Reece Hatchitt Sets in Class A, Division II

AN expectant crowd of more than five thousand spectators gathered on the shores of Greenwood Lake, New Jersey on Saturday and Sunday, August 23 and 24 to witness the Third Annual Greenwood Lake Regatta which was held under the auspices of the Middle Atlantic Outboard Association by the Greenwood Lake Boat and Country Club. Some disappointment was experienced on the first day on account of rough wet weather which necessitated the postponement of the mile trials until Sunday.

Forty-nine drivers had filed their entries for the various events and of these, only thirteen decided to compete in the time trials, a number which to those superstitiously inclined argued against any great degree of success. However, Reece Hatchitt, a sixteen-year old driver from Beechurst, Long Island apparently did not seem to be bothered by the jinx of the unlucky number and drove his Kaydet V over a rather turbulent course to establish a new world's record in class A, division II, bettering the previous mark by a full two miles an hour. His Caille motor drove him over the mile course at a speed of 30.38 m.p.h. which automatically erased the speed chalked up by Chuck Hall at Balboa, California on December 4 of last year. Hatchitt's higher speed was made with a heavier hull which complied with the new 1930 racing rules whereas Hall's speed was made before weight restrictions were placed on the boats.

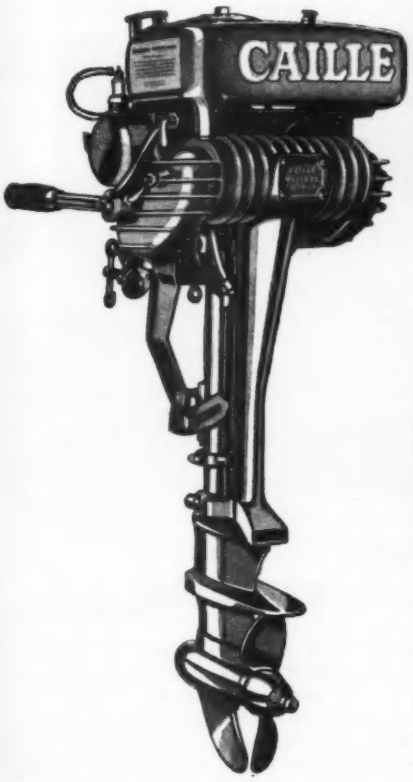
16-year-old Reece Hatchitt at the wheel of his Kaydet V, in which he raised the Class A, Division II record 2 m.p.h.

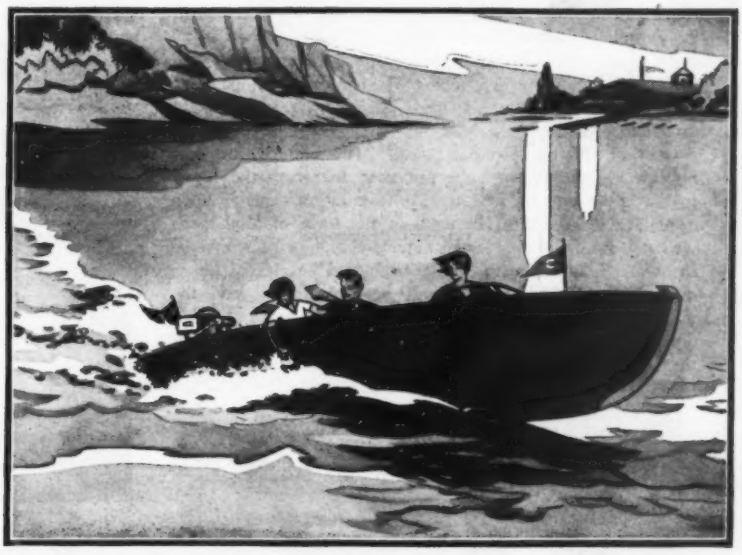
After the running of the time trials in the morning the regular competitive events scheduled for the afternoon were run. Although the weather was ideal from the point of view of the spectators the course was still rough which augured against the establishment of any remarkable speeds. In the first event for class A, divisions I and II, Hatchitt was one of the two drivers to start and the only one to finish. In the later events however, the competition was more spirited, and many of the events were marked by close finishes. In class B, divisions I and II, W. T. Bew of Ventnor City, New Jersey, finished first, beating William Schanz of Caldwell, New Jersey by a scant hundred feet. In class C, divisions I and II, Freeman Collier of Hampton, Virginia averaged 33.834 miles per hour to win the event. Bew's speed of 37.974 miles per hour had been the best of the day until the big class F motors raced around the course.

A change was made in the running of the 15-mile race for the trophy presented by State Senator Roy T. Yates of New Jersey as most of the boats were not equipped to carry enough fuel for a 15-mile run. Accordingly this event was staged in two heats of seven and a half miles each. In the first heat John Allen of Lake Hopatcong finished only a few boat lengths ahead of Lee Washington of Atlantic City but in the second heat the tables were turned and Washington crossed the line

(*Continued on page* 160)

CAILLE
RED HEADS!





SEEKERS of true outboard motoring pleasure will find their Utopia with a Caille Red Head and their favorite waterway—whether it be on a boat club race course or an isolated fishing spot of the north!

Caille dependability, built into the wide range of Caille Red Heads offers year after year of dependable power for racing hulls, runabouts, fishing boats, and even outboard-powered cruisers.

With such outstanding features as quiet, water-muffled exhaust; automatic, centrifugal cooling; a new and more powerful power head; full ball and roller bearing construction . . . and many more features . . . with these achievements of design, backed by sound manufacturing methods and materials, Caille Red Heads, indeed, present the ideal outboard motor for those seeking carefree water transportation.

Choose the Caille Red Head that has been built to fit your own individual desires. See the complete line at your dealer's. Write for Catalog.

CAILLE MOTOR COMPANY
6240 Second Blvd. Detroit, Michigan

For Year After Year of Dependable Outboard Performance, Choose a CAILLE RED HEAD

THE MONTH WITH THE OUTBOARDS

Items of Particular Interest to Followers of the Sport

OUTBOARD OR INBOARD?

NOT long ago at the Mississippi Valley Regatta at Madison a rather unique sort of racing outfit was entered for competition, and due to its doubtful status it was necessary for officials in charge of the racing to bar the entry from competition until they should have time to refer it to the Racing Commission for a ruling to determine its eligibility for outboard competition. It was the entry of John Brown and a photograph of his outfit is reproduced on this page.

As a matter of fact the photograph does not reveal the thing which actually determines whether or not it is to be classed as outboard or inboard. Four bolts are used to attach the motor to the hull in a well which is cut in the bottom of the boat well forward. The picture does not indicate whether these bolts are used to attach the lower to the upper unit or whether the installation depends upon a removable section of the hull in the form of a plate or well cover. In such a case, naturally, the drive would be through the hull and the outfit could not be classed as an outboard. If the motor merely sets in a well and the motor is a single unit, detachable by those bolts, there is nothing to bar it as an outboard regardless of the fact that it is mounted forward.

An unusual motor installation which has aroused some discussion as to whether it qualifies as outboard or inboard

YOUNG RACER DEFEATS FAST COMPANY

Quite often in racing circles one hears remarks to the effect that Class A and Class B are the beginners' classes in outboard racing and that the bigger motors are, and should be, driven by the veterans in the game.

Evidently this is a lot of hokum to Kenneth MacKenzie, fourteen-year-old outboard driver of New Haven, Connecticut, who recently surprised the natives at the Westerly, Rhode Island, regatta handily winning in Class F with his 60-inch Elto Four-Sixty motor at a speed of 42.654 miles per hour. This is very close to record speed for any class in competition, so that MacKenzie has not only demonstrated that young drivers can handle these big motors, but can drive them successfully in fast company.

His performance won him a handsome trophy. Besides being a fine prize for himself, the trophy is also a tribute to the marvelous speeds being obtained from these large, but simply-constructed and relatively light-weight motors.

HAWAIIAN CHAMP A DEMONSTRATOR

What dealer in outboard motors would not be glad to have a national champion assist him in his business by demonstrating motors to likely prospects? Certainly every one in the outboard business should envy C. W. MacFarlane, Evinrude distributor for the Hawaiian Islands. Although Mr. MacFarlane has been distributing Evinrudes for better than eighteen years, it is only in the last four years that Lui Abrams, youthful speed champion of Hawaii for the last three years, has come into prominence.

Lockwood Aces placed first and second in Class A in the Lake Sammamish Regatta, Washington. Above, Bertha Reinell, who finished second

Lui hasn't such an awful lot to do between races and very often assists Mr. MacFarlane by going out and demmonstrating motors to prospects. While Lui's hobby, of course, is speed motors, he also gets a great kick out of demonstrating the slower-going motors to the fishermen.

Now that the Fold-Light is known to be a little speed demon all by itself, having made eighteen to twenty miles an hour at various trials, we shouldn't be surprised to see Lui go out to win the Fold-Light championship of Hawaii to add to his other laurels. All of Lui's championships have been won with Evinrudes.

(*Continued on page* 160)

Johnson motors were used by U. S. Army Engineers in ascending the Rio San Juan during the survey of a proposed canal route in Nicaragua

FAMOUS Century BOATS

FOUR WINNING RACERS

PEE-WEE $145.00 — CYCLONE $250.00

MIDGET $225.00 — HURRICANE $345.00

Ray Pregenzer's Century Hurricane has travelled faster officially than any outboard in history—49.723 M.P.H.

FOUR UNUSUAL OUTBOARDS

ELEVEN-11' $135.00 — TRAVELER JR.-17' $425.00

SCAMP-15' $275.00 — TRAVELER DE LUXE-17' $535.00

FOUR AMAZING INBOARDS

SEA-MAID 22	"33"	"40"	"45"
$735.00	$1085.00	$1165.00	$1285.00
	Van Blerck amidships installation	Powered by Lycoming	Universal Blue Jacket

A FLEET OF BOATS TO FIT EVERY PURSE AND PURPOSE

BETTER DEALERS SELL CENTURY—DO YOU?

CENTURY BOAT COMPANY

MANISTEE MICHIGAN

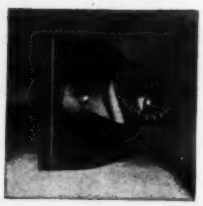
4 of the 9 new world's records recognized since July 20 were made in Century Boats

CENTURY KING OF THE SEAS BOATS CENTURY BOAT COMPANY

SAVAGE UNIVERSAL BRACKET

Recommended by all outboard motor manufacturers for an auxiliary or emergency power plant or for trolling at a smooth, economical speed. Adaptable to all kinds of boats. Removable when not in use. Price, $2o.

HARLEY *SPEED* MUFFLER



Quiets any exhaust. Entire unit fits **inside** after end of exhaust line and does not reduce hull space. Non-corrosive. Takes all cooling water and drains automatically. Inexpensive and can be installed in 15 minutes.

Agencies for both Savage Universal Bracket and Harley Speed Muffler are now available.

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Complete Service for Boat Batteries

There is a Willard dealer in your community who will be glad to service your present battery; who can supply on short notice a new battery to meet any boat requirement.

STORAGE BATTERIES
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Mullins
METAL BOATS
OUTBOARDS AND ROWBOATS
Puncture-proof, corrosion resisting, unsinkable. Brilliantly colored in enduring marine lacquer. The first cost is the last.
Write for Mullins Boat Book—a valuable boat investment guide.

MULLINS MANUFACTURING CORP., SALEM, OHIO

NATIONAL OUTBOARD CHAMPIONSHIPS

(*Continued from page* 139)

the National Outboard Association with whatever other prizes may be presented and approved by the National Outboard Racing Commission.

The winner in each class will be presented with a gold championship medal; the winner of second place, with a silver medal, and the winner of third place, with a bronze medal. Cash prizes and medals will be awarded the winners of 1st, 2nd and 3rd places in Division III. Medals or trophies will be substituted for cash in Division III if winner desires.

EXPENSE ALLOWANCE FOR DRIVERS—Divisional champions in the Eastern, Central and Western Divisions in Classes A, B, C, D, E and F, Division I or II, shall be entitled to receive from the National Outboard Association an amount of money necessary to pay for the freight of one boat and motor and first-class transportation ticket for one driver from their home address to Middletown and return. In the event that the champion in any class in any division does not require such expense funds from the National Outboard Association, then the respective divisions shall have the privilege of sending their second place winner on the basis of the above expense allotment. In no instance will the expense of more than one driver in a Class or one boat in a Class be paid under this arrangement and expenses are limited strictly to cost for freight transportation of boat and motor and first-class railroad transportation of the driver. Claim for transportation to be made out on special form provided for that purpose upon arrival at Middletown, accompanied by receipted freight bill, and payable fifteen (15) days after event. (If trailed overland, amount equivalent to freight rate allowed.)

Note: It is hoped that Divisional, Sectional and Local organizations will encourage their best drivers to enter the National Championships and make provision so that it will be possible for the winners of their local sanctioned races to be present and compete.

TITLES—The winners of the respective classes shall be known as the National Outboard Champions until the next Annual Championship event. Division III winners to be known as Division III Outboard Champions.

Note: The American Power Boat Association or Mississippi Valley Power Boat Association will not sanction any other event or events to be known as the National Outboard Championship and the holding of Sectional and Divisional Championships will be encouraged.

COMPETING IN LARGER CLASSES—Outfits eligible for a given class shall not be permitted to compete in a larger class.

PROTESTS—Protests as to the actual handling of the race and conduct of drivers therein shall be decided by the local race committee appointed by the American Power Boat Association or Mississippi Valley Power Boat Association. Protests as to the eligibility of drivers, motors and boats shall be decided by the National Outboard Racing Commission.

ENTRIES—Entries must be received by the local race committee at least one week in advance of the date set for the races.

Entrants shall note on the entry blank the name and date of at least one sanctioned race in which they have won first, second or third place, giving full particulars of hull and motor raced, manufacturer's number, class, etc. They shall race the same boat and motor or a similar outfit, that it, a boat and a motor of identical manufacture, size, class, model, etc., in the National Championship event.

INSPECTION OF MOTORS—Motors winning first, second and third places shall be inspected by the Inspection Committee appointed by the Outboard Motor Manufacturers' Trade Association.

SHIPPING INSTRUCTIONS—If boats and equipment are shipped by rail, bill to Middletown and mark: "Notify T. E. Rogers."

OFFICIAL REFEREE—A. T. Griffith, Peoria, Ill.

How to Reach Middletown

By Auto: Middletown is 96 miles from New York; take Route 114 from New Haven, Route 111 from Waterbury. From Boston 130 miles; come through Danielson, Willimantic, Routes 6 and 111.

By Steamer: Hartford Boat Line leaves Pier 42, Hudson River, New York, every week day evening. Ship boat and equipment to Middletown. Reserve stateroom to Hartford, as steamer reaches Middletown at 3:30 A. M.; Hartford, 7:00 A. M. Return Hartford to Middletown by bus, 22 miles.

By Yacht: A delightful cruise, Long Island Sound to Saybrook, then up the beautiful Connecticut River to Middletown.

By Train: New York, New Haven & Hartford Railroad to Meriden, Conn., then bus at Railroad Station to Middletown, or to Berlin for connecting train to Middletown. Coming from the west, the New York Central fast trains to Boston do not charge

(*Continued on page* 154)

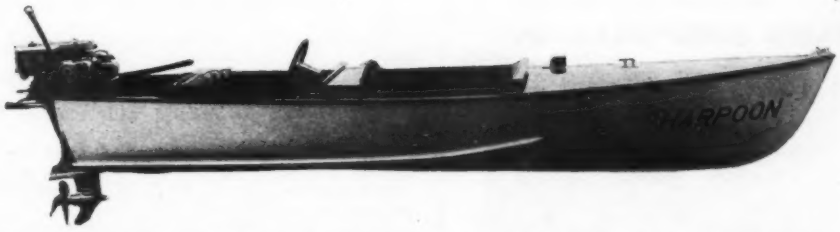
Advertising index will be found on 3rd last page

Fastest Outboard Time

New York to Miami, Florida

Captured by

HARPOON



ON August 6th Frank Morley of Mt. Dora, Florida, pointed the bow of his standard sixteen-foot HARPOON runabout southward and started on a record-breaking run from New York to Miami, Florida, covering the distance of about 1,500 miles in a total elapsed time of fourteen days, sixteen hours and fourteen minutes. This is nine days and eleven hours faster than the old record. A 35 h.p. Elto Quad furnished the power. See story on page 146 of this issue for full details of the HARPOON'S dash to Florida.

Inboard view of Morley's Harpoon, showing operating controls in aft cockpit.

Beneath the stylish beauty, gleaming whiteness and glistening mahogany of the HARPOON, is a hull designed by America's premier creator of runabouts. A boat that is really seaworthy, absolutely safe and actually comfortable at all times. The HARPOON is exceptionally dry; the spray breaking far aft, barely rises from the water. It is steady in any sea and capable of 40 miles an hour.

For B, C, D and E motors—$330.00

With steering gear and controls installed—$350.00

Also Builders of Sport Tenders and Open Boats

Write today for full particulars

Dealers! Some Territories Are Still Available.

Offered to the trade by both

THE DESIGNERS

GEORGE F. CROUCH

Incorporated

MIDDLETOWN, CONN.

AND

On the Connecticut River

THE BUILDERS

PRATT, READ & CO.

Established 1806

DEEP RIVER, CONN.

We Specialize in All Types of Aquaplanes

AQUAPLANES

Scientifically designed, beautifully balanced, for towing—

SKIBOARDS

(Patents Pending)

The outboard-motor-propelled aquaplanes—

AKWA-SKEES

(Patented Oct. 17, 1925)

The sporty self-balancing double aquaplanes—

SURF-BOARDS

Standard type and genuine Waikiki Model—

DOLPH

A game played on Akwa-Skees, Skibords and Aquaplanes

Interesting Proposition for Outboard Boat and Sporting Goods Dealers

Write for details and discounts.

Akwa-Skees Speed Model

SKIBOARD CORPORATION

72 HUBBARD STREET BROOKLYN, N. Y.

National Distributors of Water Sports Equipment

Skiboards make thrilling races.

Reliability!

LYMAN boats, in whatever capacity they may be employed, bear out this factor as only a quality product can. Perfect performance, absolute safety and seaworthiness, practicality and utility ensure the LYMAN owner that his outfit is equal to whatever condition he may encounter. Whether you are contemplating the purchase of a speed tender, a fine family runabout, a hull for fishing and duck-shooting—ad infinitum, we are prepared to serve you. Send for catalog.

Sizes, 8 to 17 feet

LYMAN BOAT WORKS

Foot of First Street Sandusky, O.

They Finish FIRST Who Finish With BALUBRICOTE

Outboard Champions and Record Holders in every boating center of the world consider it as important to finish the bottom with BALUBRICOTE as to carefully tune up their motors.

Your Boat is Capable of More Speed! Get it All—

BALUBRICOTE

THE BOTTOM COAT for FASTER BOATS

Ask your Dealer for BALUBRICOTE, or Order Direct from Makers—Quart, $2.50

BAHL-CHEMICAL CO., 194 Elm St., Fall River, Mass.

NATIONAL OUTBOARD CHAMPIONSHIPS

(*Continued from page* 152)

excess fare to Springfield, Mass. Change there to New Haven Railroad trains for Meriden or Berlin, Conn., same station—good connections. Baggage should be checked to Middletown.

By Aeroplane: To Hartford, Conn., field. Bus to Middletown. Seaplanes land in Connecticut River at Middletown.

EASTERN DIVISION CHAMPIONSHIP INFORMATION

DATE—October 11, 1930—the first of three days of wonderful fun. The first driver to finish in each race in the Eastern Divisional will be declared Eastern Divisional Champion in his Class and Division. These champions will represent the Eastern Dvision in the National Championships. In Divisions 1 and 2, the winners will have railroad fare of driver and transportation charges of boat paid from home port to Middletown and retun. Any other driver who is eligible (see N. O. A.) rules may also enter the Nationals.

The National Outboard Championships will be held at Middletown the following two days, October 12 and 13, Columbus Day.

CLASSES—Races for Classes A, B, C, D and F, Division 1 drivers racing as and with Division 2. Division 3 drivers race by themselves.

PLACE—Connecticut River, Middletown Yacht Club, Middletown, Conn.

COURSE—2½ miles, two laps to the heat, two heats to the race.

ENTRY BLANKS—May be obtained from Phelps Ingersoll, Box 1215, Middletown, Conn.

ENTRIES—Must be filed with Phelphs Ingersoll, Middletown, Conn., before October 9.

ENTRY FEE—An entry fee of $3.00 for Division 1 and 2 drivers, and $5.00 for Division 3 drivers, will be charged. No entries received after 10:00 P. M. October 9, unless special permission has been granted.

CLUB MEMBERSHIP—All owners and drivers must be a member of an outboard club or association affiliated with the Eastern Division of the A. P. B. A. Drivers not at present a member of such club or association may join The Connecticut Outboard Association (member of A. P. B. A.) when registering, for $1.00.

REGISTRATION—Outboard drivers must register at Race Headquarters at Middletown Yacht Club by 10:00 P. M. October 10.

TRANSPORTATION—Transportation of boats and equipment should be arranged with T. E. Rogers, 11 Brainerd Ave., Middletown, Conn.

INSPECTION AND WEIGHING—Inspection and weighing of boats, motors and equipment must be made previous to start of race by Bruno Beckhard.

BADGES—May be obtained at Yacht Club.

MUFFLERS—Will not be required.

FUEL AND OIL—Will be available at the floats.

PATROLLING—Patrolling of course will be in charge of U. S. Coast Guard.

NUMBERS—Every boat must have a racing number painted on both sides of the boat. Names, if any, must be confined in a space within three feet of the boat's stern. Boats without proper racing number cannot start. Numbers may be obtained at time of registration.

RACING INSTRUCTIONS—Will be given at time of registration.

SUNDAY—Between 10:00 and 12:00 A. M., absolutely no running of motors will be allowed below the bridge.

HOTEL ACCOMMODATIONS—Hotel accommodations should be reserved with Robert B. Brainerd, 438 Main St., Middletown, Conn.

PRIZES—The following A. P. B. A. Trophies will be awarded: The Hall-Scott, the A. C. F., the City of Detroit, the New England, in Classes A, B, C, D, first place. There will also be other very valuable prizes for Division 1 and 2 drivers, and $1,000.00 cash prizes for Division 3.

PRESENTATION OF PRIZES—Presentation of prizes will be made at Stueck's Tavern at an informal dance the evening of October 13. There will be no charge to contestants attending any official parties or dances.

ENTERTAINMENT—Dances and other informal parties for drivers and contestants beginning with a buffet supper and dance on October 10. On Saturday there will be luncheon served to all drivers, officials, and guests and in the afternoon tea will be served. There will be a dance in the evening. Again on Sunday the 12th, luncheon and tea will be served to officials and contestants. This same program will be repeated again on Monday, together with a large dance and banquet at which the prizes will be presented. Provision has been made for a well equipped R.C.2 headquarters room which will no doubt be visited by all members and friends.

Advertising index will be found on 3rd last page

A REAL BARGAIN SALE!

ASTONISHING VALUES IN BRAND NEW OUTBOARD BOATS AND MOTORS. PREVIOUS SEASON'S STOCKS TO BE CLEARED

Outboard Boats

PENN YANS

	Originally	Now
Ceestepper 14' ..	$244.00	$100.00
Playmate 15' ...	177.00	125.00
Row Outboard 14'	96.00	70.00
Above in Mahog.	104.00	75.00
Coquette 16' ...	150.00	105.00
Above in Mahog.	163.00	115.00
Bee Hydro	155.00	50.00
Super Buzz 16'..	225.00	160.00

SEA SLEDS—1928 Models

	Originally	Now
13'	$229.00	$125.00

BABY WHALES—1928 Models

10'	225.00	100.00
12'	225.00	100.00
11' Speed Ten...	235.00	175.00
14'	290.00	100.00

	Originally	Now
Mullins Albatross 15' 1930 Model	$377.00	$250.00
Chase-Emerson 16'	875.00	300.00
Boyd-Martin 12' Bullet Sr., 1930 Model.....	275.00	150.00

OUTBOARD MOTORS

	Originally	Now
Evinrude 1929 Models		
Speeditwin 20 h.p.	$300.00	$200.00
Fastwin 15 h.p.	190.00	125.00
Caille 1929 Mod., 16 h.p....	250.00	125.00
21 h.p....	290.00	150.00
Lockwood 1929 Models		
Chief (Racing) 15 h.p.....	250.00	125.00
Chief (Silent) 11 h.p.....	190.00	100.00

JOHNSON 1928 Models

	Originally	Now
KR-40 9 h.p.....	$175.00	$100.00
K-40 7 h.p.....	165.00	100.00
P-35 10 h.p.....	210.00	125.00
P-40 11 h.p.....	210.00	125.00
PR-40 16 h.p.....	220.00	125.00

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1045 Commonwealth Avenue
BOSTON, MASS.

MOTOR — RACING — SAILING

PENN YAN DINGHIES

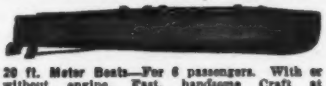
The smoothest riding dinghy made. Easier to handle, too. And built of special composition construction that assures greater strength, no leaking, no caulking. Lighter in weight than wood boats and therefore faster. Attractive color finishes, guaranteed against blistering, pooling or "rot." The outstanding dinghy of today—and despite their superior features, PENN YAN dinghies cost no more! Write today for illustrated booklet and low prices.

PENN YAN BOAT CO., Inc.
Builders of Penn Yan Racing Craft
155 Water Street — Penn Yan, N. Y.

Thompson BEATS the World on BOATS

OUTBOARD MOTOR BOATS—A complete line of strictly up-to-date racing models. Also some entirely new speedy models for general pleasure use. Built strong and durable and absolutely safe.

Rowboats $48.00 and up—The most complete line ever offered, at real money-saving prices.



20 ft. Motor Boats—For 6 passengers. With or without engine. Fast, handsome Craft at money-saving prices.

CATALOG FREE!

Save Money
Order by Mail

Please state the kind of boat you are interested in

Two Large Factories

THOMPSON BROS. BOAT MFG. CO.
210 Ann St. — Peshtigo, Wisconsin
Write to Either Place
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You can get
INCREASED POWER
from a sluggish engine
by INSTALLING new ignition wire and Rajah Terminals in seven out of ten engines.

Exhaustive tests by engineering laboratories and engine owners have proved this statement.

Thrust Clip

Your two hands are the only tools you need to install Rajah Terminals.

For best results, at little cost, specify RAJAH.

Order today from your dealer or send direct to us.

The RAJAH Company
BLOOMFIELD, N. J.

BOYD-MARTIN

Family Outboard Boats

Round Bottom and Vee-Type Models

THE sturdy Boyd-Martin boats are ideal for family outings, fishing or duck hunting. Sizes 14 to 18 feet. Seating capacities up to 8 persons. Speeds up to 30 m.p.h. Latest refinements for comfort, most advanced safety features, beautiful lines, fine quality and maximum dollar for dollar value are characteristics of all Boyd-Martin boats.

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IMMEDIATE DELIVERY *in* NEW ENGLAND

LUDINGTON BOATS *and* JOHNSON MOTORS

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DODGE RUNABOUTS
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PROMPT DELIVERIES ASSURED

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INCORPORATED

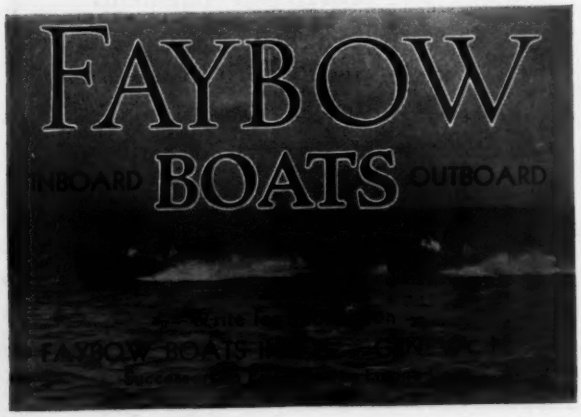
20 BROOKLINE AVENUE BOSTON, MASSACHUSETTS

OUTBOARDS

EXCEL IN SPEED — ECONOMY — THRILLS!

In all the world there is no thrill like outboarding. Modern hulls and self-starting motors give you every convenience. Watch these low-priced speeders BOOM in 1931!

GORDON B. HOOTON GRAND RAPIDS, MICHIGAN



LOOKING INSIDE THE OUTBOARD ENGINE

(*Continued from page* 144)

distance from the center of the propeller shaft to the outlet on the propeller blade, the centrifugal action on the water creates a rather powerful suction even at relatively low propeller speeds. This suction is then assisted by the other forces mentioned. In addition, there is the pressure at A. Taken altogether, this system will circulate an adequate amount of water at the lowest speeds at which the motor can be operated. At high boat speeds, as in racing, the suction at the propeller end is not necessary and the length of the passages in the blades may be greatly reduced or dispensed with altogether since the pressure at A is in itself sufficient to circulate the water.

When the motor is first put into the water, some water will enter at A and some through the propeller passages, into the system. The pipes to the power head and the cylinder jackets are then full of air, however. If the motor is immediately opened up, the pressure at A will force this air from the system and start circulation, but if not, then the water that entered the system through the propeller may be thrown out without creating enough suction to bring the air too. After there is air in the propeller passages, then there is no powerful centrifugal force to create suction on the remaining air since there are no columns of water in the passages to be thrown outward, and none can enter while the blades are in motion. To overcome this, a small bleeder hole is drilled through the side of the gear housing into the passage E just under the water guide plate. This admits a small amount of water at all times and provides some water to be thrown out by the blade passages even before water has reached the system by way of the intake openings at A. The presence of some water in the propeller passages permits the creation of some vacuum which eventually removes the air from the system. The bleeder is a sort of automatic self-priming device. The system will not fail to work even though this small hole is closed, but it is an additional provision to insure prompt circulation.

Since at all but high boat speeds, the circulation depends largely on suction, it is necessary, with this system, to see that all pipe connections are permanently tight. A leak is not made evident by the escape of water, rather, air is sucked in. And if the leak is big enough it will break the suction and stop the circulation provided the pressure at A is not yet sufficiently high to prevent it.

The propeller blades are somewhat thicker at the roots than the solid type and therefore slightly less efficient. However, where highest propeller efficiency is required, as in racing, the passages may be discarded. The propeller shaft is somewhat costly owing to the drilling of its entire length. Otherwise, this cooling system is most efficient and has proven highly satisfactory in service.

Figure 37 shows a similar system used in Evinrude motors. Hollow propeller blades are used but the return passages in the gear housing are different and a hollow propeller shaft is not used. In this system there may be some leakage at the point where the water passes from the gear housing into the propeller hub and some wear may occur at this point because of foreign matter in the water.

As may have been gathered from the foregoing, the test of a modern outboard motor cooling system is whether it will start and maintain circulation at very slow motor and boat speeds. Since the plunger pump has been discontinued almost altogether, and valveless systems with few or no moving parts adopted, the question of dependability under average conditions of operation needs little attention. Even in muddy, sandy, or weed-infested waters there is little that can occur to stop the cooling water circulation. When the motor is first started, however, it is necessary to make sure that the circulation has also started.

When the water pipes and the jackets are full of air, it is necessary that the circulation means be powerful enough to lift a column of water the distance from the surface of the lake or stream to the highest point in the cooling system, and to overcome any resistance there may be to the discharge of the air from the system. After the pipes and jackets are full of water, the descending column of water on the one side balances a like column of water on the other side—there is a partial syphoning action—so that the pressure, or suction, required to lift the water into the upper part of the system is not nearly so great unless the water is discharged at this highest point.

A circulation system which will not start circulation at a given low speed may be quite adequate to maintain the circulation once it is started. For that reason, it is always well to open the throttle and let the motor turn up at some speed for a few moments when first started. It may then be slowed down again.

Maintenance of adequate cooling water circulation is just as important as lubrication. For if the circulation stops, the motor may get hot enough to break down the lubrication and cause serious seizure and scoring of the pistons and cylinders.

(*To be continued.*)

Advertising index will be found on 3rd last page

PATENT APPLIED FOR

Ferguson Wins 7 Firsts *and* 1 Second in Eight Races *with* STANNUS PROPELLERS

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WON TWO FIRST AND ONE SECOND PLACE AT MARGATE STOP TWO FIRST PLACES SOMERS POINT AND THREE FIRST PLACES AT OCEAN CITY N J OUT OF EIGHT RACES USING YOUR PROPELLERS

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Genuine Stannus Wheels Bear Our Name

STANNUS PROPELLER CORPORATION

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DETROIT, MICHIGAN, U. S. A.

CROSS OUTBOARD MOTORS *WIN*

MICHIGAN STATE CHAMPIONSHIP
In
Class G, Div. III
and
Class G, Div. IV

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Cross Gear & Engine Co.
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MOTOR boat owners who used Pennzoil this season now know why millions of car owners call it "the best motor oil in the world." This supreme quality Pennsylvania oil has the stamina necessary to properly lubricate both inboard and outboard motors. Sold by dealers from Maine to California.

The Pennzoil Co. *Executive Offices and Refinery: Oil City, Pa.; Division Offices: New York, Chicago, Los Angeles.*

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OUTBOARDS

Winter Storage
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BRUNO BECKHARD

BUILD YOUR OWN BOAT

SIMPLE - - - - - PROFITABLE

Bill Frey in His Welch Designed Hydroplane

You can build your favorite boat. The Welch System makes it easy, interesting and profitable. The boat builder's work is done in our shop. You assemble the parts. Our new catalog explains this new system of boat building. Send for it.

It is full of brand-new designs: inboard—outboard—cruisers—sail and row-boats. You will find just the design you want. You can own a fine boat for surprisingly low price.

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PLAYBUOY THE BUOYANT HUNTING JACKET

THE only Hunting Jacket that combines Safety with utility. Lightweight, comfortable, made of extra-strong O. D. or white cloth. The buoyancy of Kapo "Ceibasilk" protects the wearer in a sudden upset. Cold or wind cannot penetrate this garment because of the insulating qualities of "Ceibasilk." Fast holding snap fasteners and two roomy pockets to stow shells in. Order by chest measure.

From $10.50 to $13.00.

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151 Second Street
E. CAMBRIDGE MASS.

Send for illustrated catalog showing complete line of Life Saving Vests, Pillows, Camp Sleeping Equipment, etc.

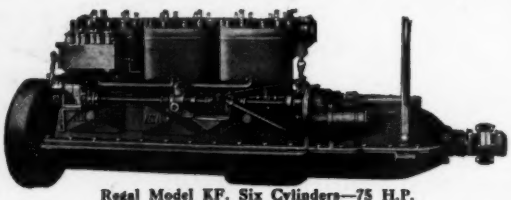
KANTSINK KAPO CEIBASILK PRODUCTS LIFESAVING EQUIPMENT

ENDURANCE

an Outstanding Characteristic of

REGAL MARINE ENGINES

Regal's reputation for endurance is based on a record of twenty-nine years of dependable service in all types of craft throughout the world. They deliver a maximum of smooth, flexible and reliable power with minimum service and upkeep.



Regal Model KF. Six Cylinders—75 H.P.
Bore 5½". Stroke 7"

There is a Regal model ideally suited to your boat. Install it now—its staunch construction and modern refinements will appeal to you; its faultless efficiency will be a lasting pleasure.

18 MODELS—2 to 75 H.P.

One to Six Cylinders

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REGAL GASOLINE ENGINE COMPANY

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104 Years of SERVICE

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SPECIALISTS in marine accessories, featuring marine hardware, flags, oars, rope of all kinds and all other marine items.

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TWENTY-TWO FEET. DOUBLE COCKPIT. GENUINE SEA SKIFF CONSTRUCTION. 20 M.P.H. WITH 40 TO 50 H.P

Send today for illustrated folder or see the Sportskiff on display at showroom of Henry A. Pohl, Inc., 410 N. E. 13th Street, Miami, Florida. For demonstration see Mr. Alfred Denig, Huntington, New York,

G. T. BACKUS & SON FORT PIERCE, FLORIDA

FOURTEEN DAYS TO MIAMI

(*Continued from page* 146)

ley became numbed with the cold and took advantage of a bit of sunlight and a stretch of sand beach to get out and run up and down to restore his circulation.

In leaving Pamlico Sound and on the Neuse River the worst chop of the run was encountered. It was necessary to slow down to avoid trouble. Beaufort was finally reached before dark and the tanks filled for an early start the following day. Beaufort was left at six o'clock in the morning on August 14. Seventy-five miles had been covered after about three and a half hours of good going at sea. Then near Cape Fear Shoal breakers were encountered which made it necessary to slow down greatly. The Cape Fear River, 100 miles from Beaufort, was met five hours from Beaufort where it was necessary to run to Southport for fuel. Further rough weather was experienced during the afternoon and the day's run ended at McClellanville, about 15 miles below Winyah Bay entrance. The remaining 50 miles to Charleston were covered in less than 2 hours the following morning. Morley stayed over at Charleston and did not get away until mid-afternoon, reaching Beaufort, South Carolina, by evening.

The fifty-five miles from Beaufort to Thunderbolt were covered in 1¾ hours which will give an idea of the capability of the boat under favorable conditions. Thunderbolt was not left until the following morning and the run from there continued pass the sea islands off Georgia with steady running and good average conditions. Florida was reached about 2:30 that same afternoon and a stop made at Fernandina soon after crossing the line. Further troubles developed making it necessary to stop at a drawbridge across Pablo Creek where the night was spent. The wires to the spark plugs were leaky due to the salt water to which they had been exposed which resulted in starting difficulties.

In the Florida east coast canal some dredges were at work above St. Augustine which left little water in the canal at low tide. A distance of a mile or more between these dredges was covered by various means. First the boat was poled with an oar, then paddled, and finally Morley went overboard and waded, pushing the boat before him. When he came to a deep spot he had to swim and push the boat in this way. Fuel was taken on at St. Augustine and Daytona Beach reached by evening where a stop was made.

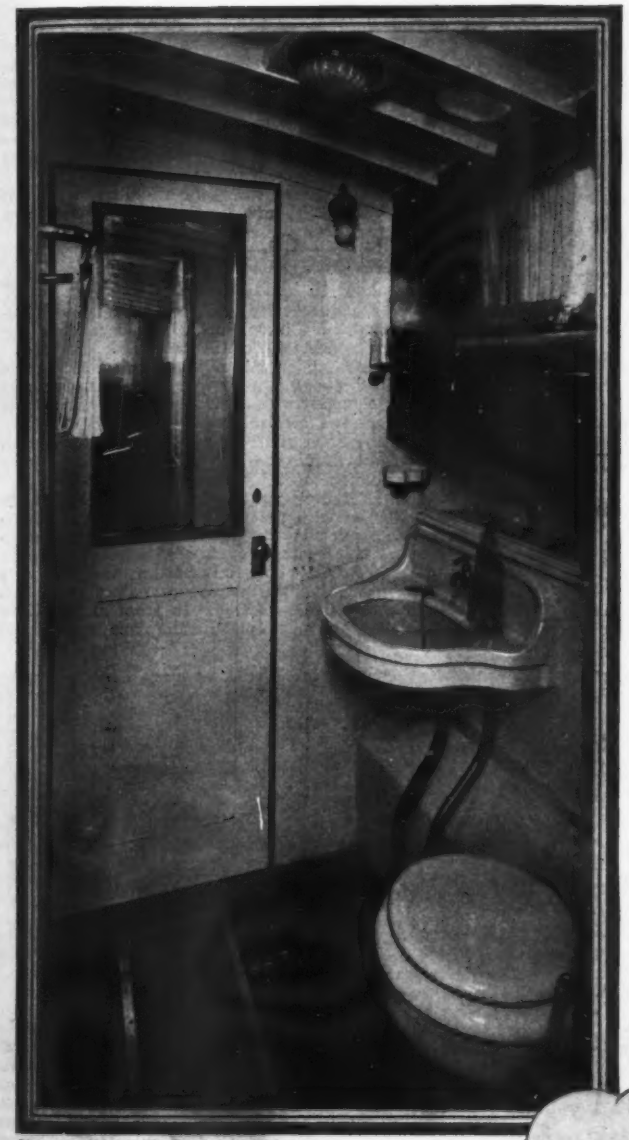
An early start the following morning brought the wanderer into the Indian River which was quite choppy but not enough so to interfere with speed. A final stop for fuel was made at Cocoa where enough was taken on to carry through to Miami. Fort Pierce, Florida, was reached by evening and ideal conditions were found for taking care of the boat at night. A small creek enters the river near the center of the town with a hotel right on its shores. Morley was able to bring his outfit in and tie it up just outside of his window where he could observe that the boat was well protected. This also cut down on the distance over which a heavy bag had to be carried.

He left Fort Pierce right after luncheon and continued to St. Lucie Inlet where there seemed to be some markers missing. Palm Beach was passed at 4:15 in the afternoon and the canal at the lower end of Lake Worth entered. This was found to be filled with water hyacinths to such an extent that he returned to Lake Worth and went out on the ocean through a cut near the lower end of the lake. At Hillsboro Inlet he returned to the inland route and learned from a tug captain that the rest of the route to Fort Lauderdale was fairly clear and this point was reached just about dark. The night was cloudy and in addition it started to rain so that the visibility was very poor. In addition Morley found that his chart case was missing so that it was necessary to enter Miami by feeling his way. He got off the course several times and ran aground shearing several pins. After a short run in deep water more shoals were encountered and some beacons finally located. By guessing at the probable direction of the channel others were located until the causeways of Miami became visible. From this point on it was a simple matter to reach Miami which was accomplished about 10 P.M. that evening. In the entire two weeks time the Elto Quad had actually run no more than 75 hours so that it is apparent that speed alone is not the only factor to be considered in making a trip of this kind.

VOYAGERS UNAFRAID

Voyagers Unafraid is the title of a new volume by Irwin Anthony, author of Down to the Sea in Ships. Mr. Anthony has weaved a fascinating and entertaining story around the true accounts of men who braved Atlantic gales to span the ocean single-handed in small boats. The stories of Blackburn, Johnson, Crapo, Andrews, Day and Gerbault, recounting the severe hard ships they endured, are set forth in the author's able style.

Like all C.C.f. Cruisers the Handsome 47-footer has



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Practically all leading boat builders furnish the Sands product as standard equipment—its superiority is so well recognized that one expects to find Sands Fixtures on every fine yacht. Naval architects specify it—yachtsmen demand it. Nothing adds more class and distinction to your boat than to be able to say, "Plumbing by Sands."

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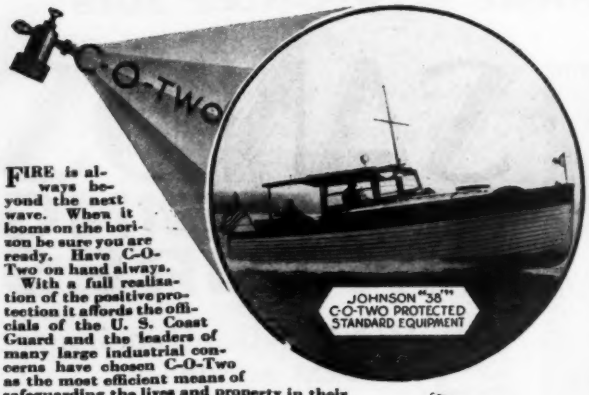
Take this Tip . . .
For a Carefree Trip



FIRE is always beyond the next wave. When it looms on the horizon be sure you are ready. Have C-O-Two on hand always.

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THIRD GREENWOOD LAKE REGATTA

(*Continued from page* 148)

first which resulted in a tie on points between these two drivers. The trophy, however, was awarded to Washington on the basis of his having a better elapsed time.

Another close finish was witnessed in class C, divisions III and IV, when Fred Jacoby, Jr., of West New York, nosed out Ted Roberts of New York by a very few feet. In this event three of the drivers were disqualified for cutting buoys.

H. G. Ferguson, of Elsinore, California, the outboard speed demon from the West Coast, who had held the record for the highest outboard speed up until a very short time ago, displayed some of his usual style and led the entire field in class D, division I and II, finishing fifty yards in the lead at the end of the five-mile run. Other new records in the mile trials might have been established had Ferguson competed in the mile trials, but this he did not do as the water was too rough.

This unique craft has attained speeds of 45 miles an hour. It banks on turns as does an airplane, rises and is steered like its larger prottoype.

(*Continued from page* 150)

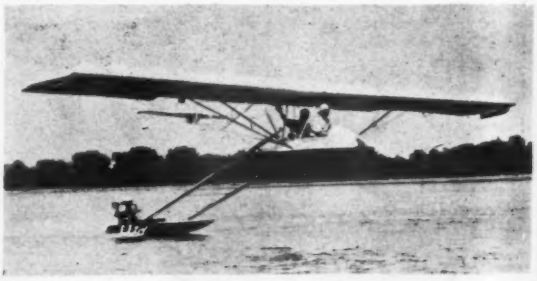
WATERPLANES PROVIDE THRILLING SPORT

Not satisfied with the spectacular thrills of ordinary outboarding, Robertson Brothers of Clinton, Iowa, have devised an outboard-propelled glider which they call a waterplane.

The outfit consists of a glider with a wing area of 220 square feet. Suspended from the wing is a cockpit, which also serves as a float and which is equipped with controls almost identical with those of other gliders and airplanes.

Extending from the side of the cockpit are pivoted struts reaching to a boat-like float, on which is mounted an electric-starting Elto Quad motor of 35 h. p.

The operator seats himself in the cockpit and touches the starter button connected with the motor. As the motor starts the waterplane is pushed over the water, gradually rises on its step, and then takes to the air, buoyancy being provided by its ample wing spread. At the pilot's left hand is the throttle to the motor, which enables him to increase or reduce speed. At his feet is a rudder to provide steering. In front of him is the joystick, which enables him to keep the waterplane in horizontal position.



The Robertson Waterplane in flight at the Harmsworth Regatta

RECORDS FALL AT ELSINORE

Resumption of outboard racing on Lake Elsinore for the fall and winter series and the preliminaries to the Southern California Championships, resulted in the setting of six new world speed marks. Outstanding among these were two Division II records in Class E over a distance of ten miles, made by the veteran Al Thomson of Los Angeles and C. L. Covington of Salton Sea. De Mark of Pasadena, a novice who won his maiden race at Long Beach, July 4, again distinguished himself by setting two records in Division I, while Don Steans set another Division I mark and another Division II record was made by Frank Gilbert of Los Angeles.

The most thrilling race of the day was the ten-mile Class C, Division II event; it looked like old times for the first lap until Loretta Turnbull got away in the clear and led the way to the finish, trailed by Al Thomson and B. A. Wheeler.

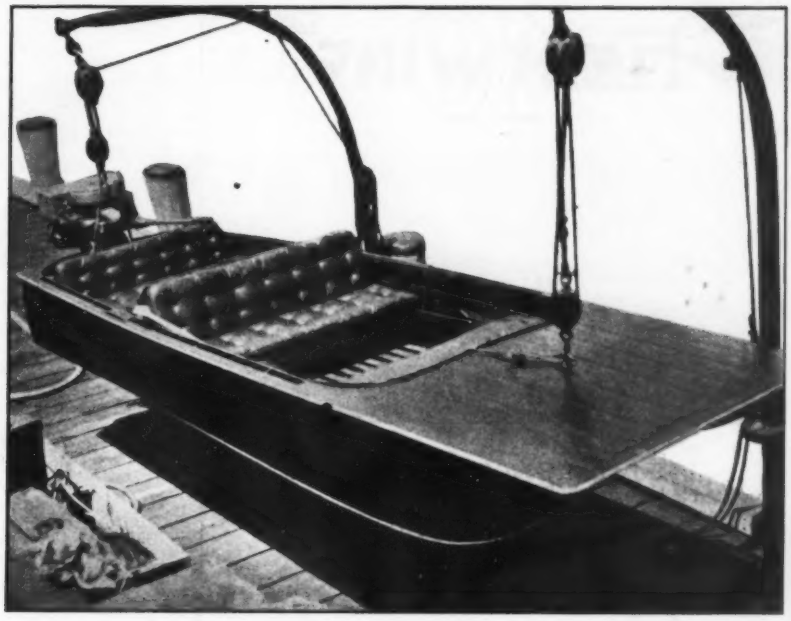
The Dope and Dirt trophy awarded by Put-put Johnson was for the slowest time made in Class C, Division I event and was won by a worthy contender in 10 minutes 20 seconds for the five miles.

The Hard Luck trophy was won by Dr. Steelman because he tried to duck under the pier but failed to get by with it.

The Best Alibi trophy was won by J. Rienke of Coronado, who said "If I had not turned over, I would have won the race."

Advertising index will be found on 3rd last page

ONE DEALER'S WAY



Model 13 completely equipped as one dealer shows his demonstration craft ready for immediate action

ONE of our dealers, who is lucky enough to have a waterfront alongside his place of business, has worked out a new stunt which is developing surprising results.

On davits ready for instant action hangs the Model 13 Sea Sled which he uses for demonstration. On any emergency call she'll be in the water and ready to go in the few seconds it takes to lower away the falls and cast off.

This means that an errand, a tow, or a call for help receive attention with no delay, and a prospective customer hardly has time to say "demonstration" before he is getting one.

Meanwhile the dealer through daily usage acquires proficiency in regular handling which makes him adept as a salesman.

Model 13 has not only been adding to its own reputation this season, but increasing the regard which all Sea Sleds are winning as particularly desirable craft for women who love the water.

The 36 mile race for stock runabouts around Staten Island was run in comparatively rough water which put a number of the entries out of commission long before the race was over. It is significant that both first and second prizes in this race were won by young women driving their own Sea Sleds, and both were enthusiastic about the qualities and speed shown by their Sea Sleds under trying conditions.

The high factor of safety, coupled with the speed and ability of the Sea Sled in rough water, makes it a craft in which an able-bodied lady can and does demonstrate herself often the equal and now and then the superior on the water of many of her boy friends, regardless of where they think they learned their seamanship.

A Hint to Dealers

This trick of slinging a small Sea Sled on davits on a dock side is worth thinking over for next season. It shows the patented excellence of design as nothing else can do, and it puts the dealer in a position to give an instant demonstration which is very convincing to the prospective customer.

TRADE-MARK REG. **SEA SLED** U. S. PAT. OFFICE

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SEA SLED

SPEED · · WITH COMFORT AND · · SAFETY

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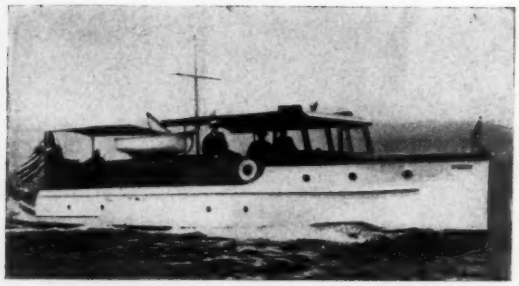

THE popular Fleetwing Forty bridge deck double cabin cruiser sleeping seven is the outstanding craft of its size in quality, design, performance and value. Powered with 115 H.P. six-cylinder Buda. Price $10,875. Enclosed De Luxe Model $12,950.

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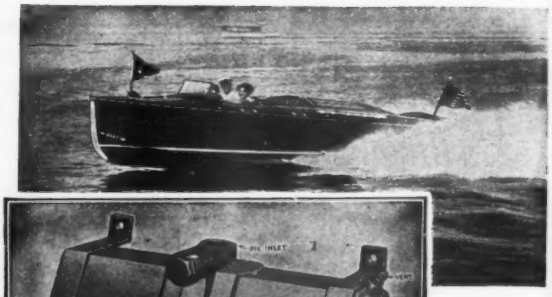

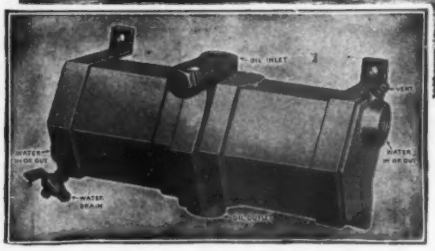

That thrilling speed of the modern runabout or fast cruiser can be maintained without over-heating the motor —when your engine is equipped with a Groco Oil Cooler.

Details and prices promptly sent upon request.

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Standard equipment on the finest boats and engines.

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A LOT OF BOAT for $109.50

Read *how* you can get it for *this price!*

Ordinarily, you'd pay $300 or more for a boat of this type —and then it wouldn't equal this Brooks model for real class. The Brooks method saves you two-thirds your boat money. How? You get the boat complete, knocked-down, and assemble it yourself. Any amateur can do it with only a few ordinary tools. No chance of going wrong.

The Brooks "Royal" shown above is a marvelous value at $109.50 complete including copper and brass fastenings. Overall length 16 feet with an extreme beam of 52 inches. Does 30 miles an hour with Class D 32-H.P. motor. Banks beautifully—turns within its own length with throttle almost wide open. Light and easy to transport, yet sturdy in construction with a hull that will stand the gaff. Comfortable seating arrangement. Ample room for six passengers. Note the large freeboard, keeping cockpits free from spray.

Send 10c. now for catalog showing details of this and 54 other Brooks models, runabouts, outboard speedsters, cruisers, sailboats. Write today.

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"This Boat Is Constructed of Genuine Mahogany"

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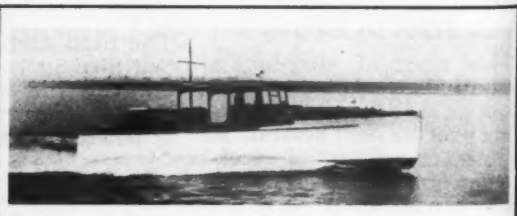

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One unusually fast 41 foot demonstrator at a most attractive price.

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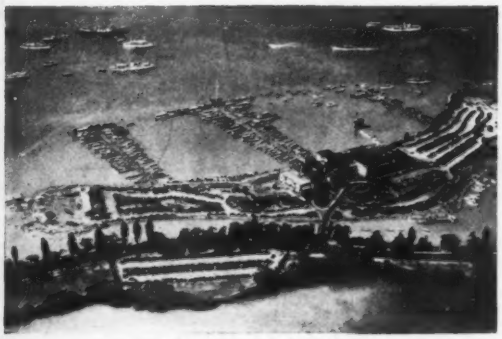

THE DETROIT YACHT CLUB . . . impressive in its size and buying power. A market concentrated and condensed for those merchandisers in the marine field awake and alert to its manifold advantages. No waste circulation here. Boat minded already, its membership needs but the appeal of quality and value to arouse them. Main Sheet, smart publication of a sophisticated membership offers you its pages of printers' ink and attractive format. Rates and circulation data on request. Economize through concentration!

The Main Sheet

W. D. EDENBURN, Editor
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Naval Architects and Yacht Buyers are invited to submit their plans for our estimates.

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Makes Anchor Raising Easy

THIS simple practical device makes anchor raising the easiest job on your boat. The Sturges Anchor Hoist provides every requirement for lowering and raising the anchor with minimum manual effort. For short stops, anchoring with the light service line is usually sufficient, without bothering to get out your heavy anchor line. When not in use, the davit and the hoist can be unshipped, leaving only the base on deck.

The Sturges Anchor Hoist is made for any type of anchor up to 100 lbs. Sturdily built, heavily galvanized. Furnished entirely in brass at slight extra cost. The davit can be designed especially to fit your boat without extra cost.

Made in three different sizes.

You will be surprised at the many features of the Sturges Anchor Hoist. . Let us explain them to you. Write today for details and prices.

Davit unships here.
Carrying handle.
Windlass unships here.
Rope is easily applied in open type block.
Model No. 3 with 3 speed transmission, for anchors 60 to 100 lbs. The low speed gives powerful leverage for breaking the anchor loose from a mud bottom. Second speed (on which the handle is shown) is normally used for hoisting the anchor. The high speed or direct drive on main shaft is for quickly reeling in the slack of the rope. This model also has powerful brake for lowering anchor into water.
Combination base including bitt, adds to appearance of boat.

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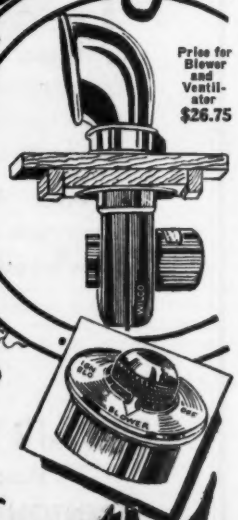

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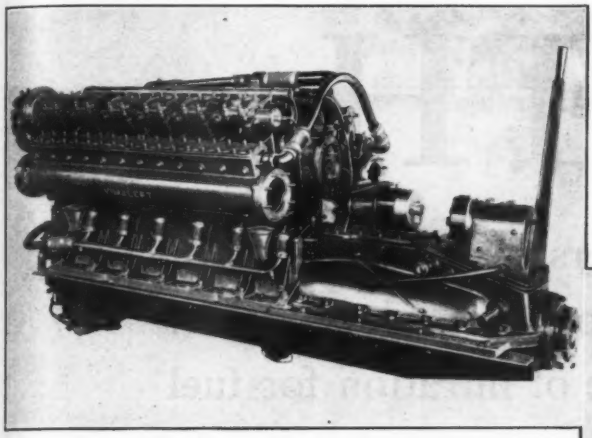
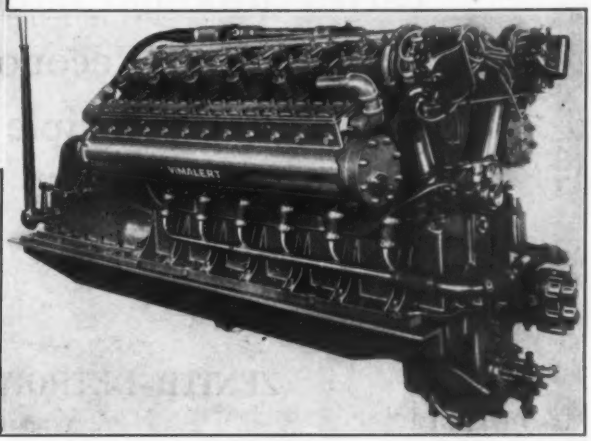
MARINE ENGINE





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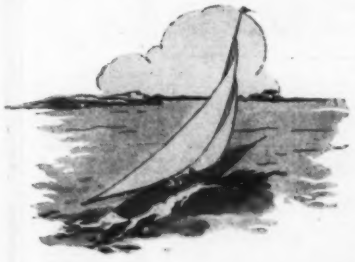

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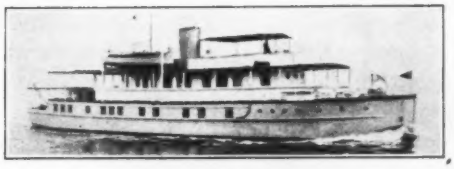
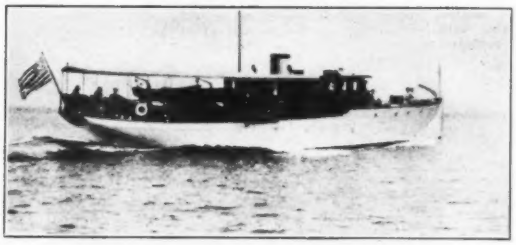
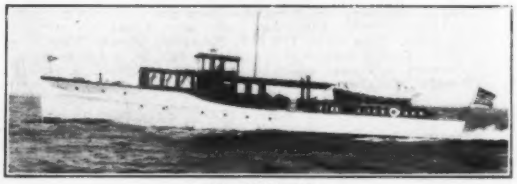


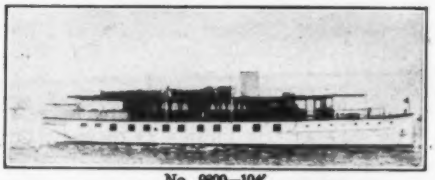
No. 9817—99'6"
TWIN SCREW HOUSEBOAT



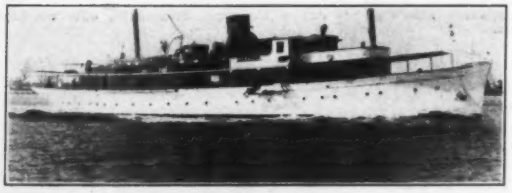
No. 9761—133'
TWIN SCREW DIESEL YACHT



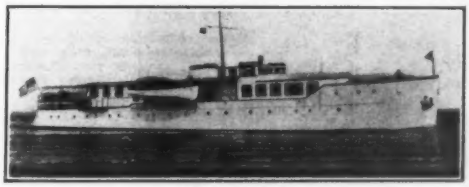
No. 10000—92'
TWIN SCREW POWER YACHT



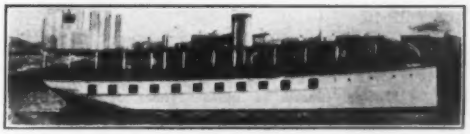
No. 9800—104'
TWIN SCREW DIESEL YACHT



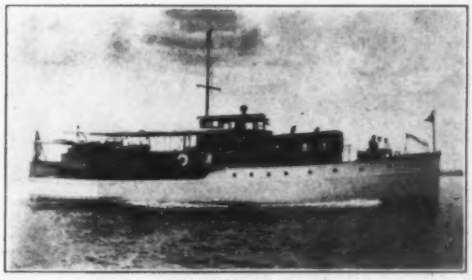
No. 10166—161'
TWIN SCREW DIESEL YACHT



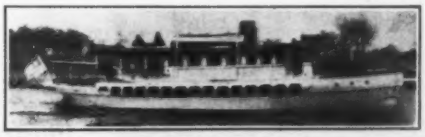
No. 10905—122'
TWIN SCREW CRUISER



No. 9962—88'
TWIN SCREW HOUSEBOAT



No. 11253—75'
TWIN SCREW MOTOR YACHT



No. 9472—80'
TWIN SCREW HOUSEBOAT

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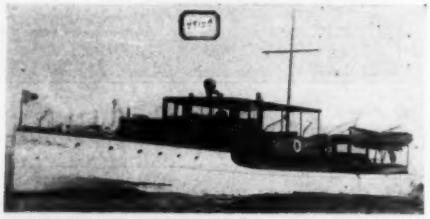
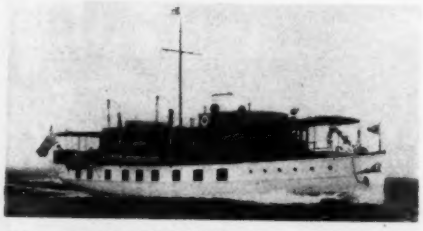
No 5284 FOR WINTER CHARTER—Twin-screw 185' seagoing Diesel Yacht. Speed 12 knots. Accommodations include large deckhouse containing dining saloon, galley, pantry, library and living room; below are six staterooms, each with connecting bath. Beautifully furnished and fitted with all modern conveniences. In commission, with excellent crew aboard. Further particulars upon request.

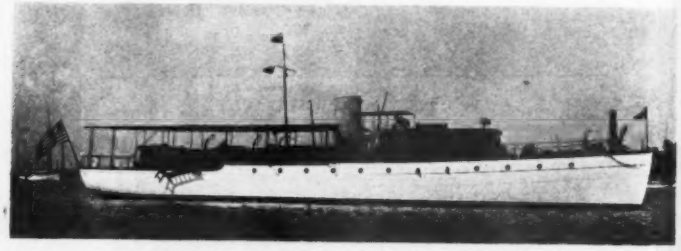


No. 4815 FOR SALE—Fast 80-ft. Twin Screw Power Yacht. Two 6-Cyl. 225 H.P. Motors. Speed 16 miles. Three double staterooms, shower bath and two toilet rooms. Dining saloon in deckhouse forward. Large deck space. Price reasonable for a quick sale. Further particulars on request.

No. 5520 FOR SALE—Twin Screw 66-ft. Consolidated Commuter. Speed up to 22 miles. Two 6-cyl. 170 H.P. Speedway Motors. New 1929. Double stateroom; dining saloon in deckhouse. Forward and after cockpits. Splendid condition. Unusually attractive price.



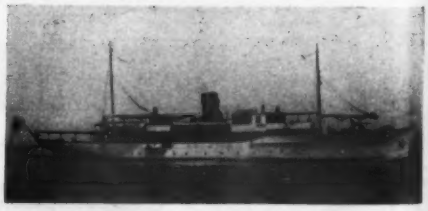
No. 4733 FOR SALE—Modern twin-screw 93' Mathis houseboat. Speed up to 14 miles; two 6-cylinder 150 H.P. Winton gasoline motors. Accommodations consist of large combined living and dining room in deckhouse, three double, one single stateroom, three baths. Handsomely fitted and furnished. Excellent condition throughout. Price attractive. SEVERAL OTHERS OF THIS TYPE AVAILABLE FOR CHARTER FOR FLORIDA USE, BOTH LARGER AND SMALLER.



No. 463 FOR SALE AT LOW FIGURE AS OWNER HAS PURCHASED LARGER YACHT—Steel, twin-screw 110 ft. power yacht, speed about 13 miles cruising; 2 six cylinder air starting 100/125 H.P. Standard motors. Accommodations include two double, two single staterooms, bath and two toilets. Has been maintained in the best possible condition and a number of modern improvements added from time to time, including electric windlass, capstan aft, and refrigeration, also Pyrofax gas stove. Deckhouse, skylights and all deck fittings of teak. Exceptionally able craft for one of her type. Reasonable offer considered for a quick sale.

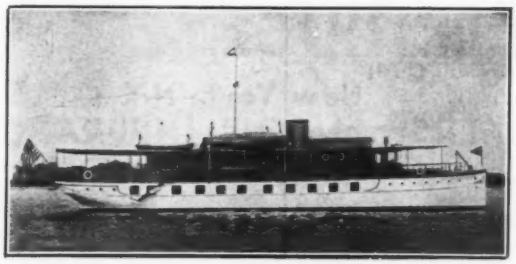
No. 5434 FOR SALE—Roomy, fast Cruising Power Yacht. 94 feet long, 15 foot beam. Built in 1928. Two 350 H.P. Winton Motors. Cruising speed 17 m.p.h. Large combined dining room and living room in sunken deckhouse forward. Below aft are two double, two single staterooms, three baths, toilet rooms. Large deck space. Attractively finished and furnished. All modern conveniences. Hull double planked. Built from our plans and under our supervision. Price attractive for immediate sale.

The
YACHTS
illustrated on this page represent only a few of the large number listed with us FOR SALE or CHARTER. Let us know your requirements.



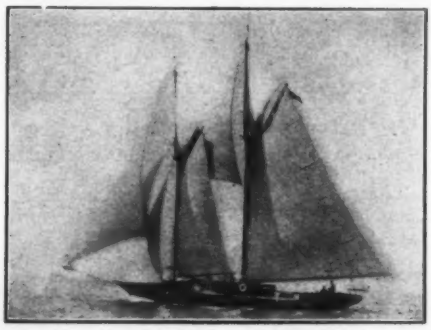
No. 4649 FOR CHARTER—Modern 172 ft. Ocean-going Twin Screw Diesel Yacht. Two 6-cyl., 350 H.P. Winton Diesel Motors. Accommodations include continuous deckhouse containing large dining saloon, library and living room. Below six staterooms, four baths. Large deck space with shelter deck aft.

Advertising index will be found on 3rd last page

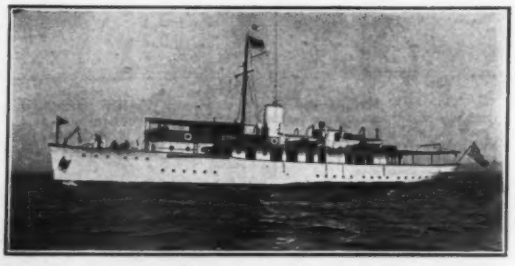


No. 1769—For Sale or Charter—103'4" Yacht. Four double staterooms and one single, including three bathrooms. Powered with two Winton motors of 250 H.P. each.

No. 1999D—For Sale or Charter, 93' Mathis Houseboat. Three double staterooms and two single, large deck house and spacious afterdeck. Powered with two Winton motors 150 H.P. each.

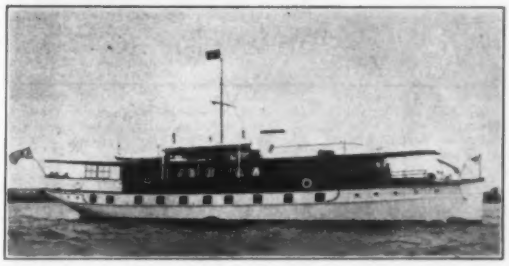


No. 4518—For Sale or Charter—Auxiliary Schooner. 64' o.a., 51' w.l. 15'5" beam, draft 9'. Designed by B. B. Crowninshield, large double stateroom, single stateroom, three transoms in salon. Complete new set of sails in 1929. Extra racing sails for Bermuda Race in 1930. Splendid offshore cruiser.



No. 8212—For Sale or Charter—160'5" Diesel Yacht. Three double staterooms and four single, including five bathrooms. Powered with two Winton Motors, 350 H.P. each.

10612—For Sale. New 80' Express Cruiser—Two 350 H.P. Winton Motors, speed up to 20 miles per hour—two beautiful staterooms, owner's private dressing room and bath, large deck house, beautiful deck space—boat in perfect condition, in commission.



No. 10431—For Charter—101' Mathis Houseboat. Powered with two Winton Diesel 200 H.P. Motors. Four double staterooms and one single. Main salon and dining salon. Boat in good condition.

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The SOUTH with its extensive waters, ocean, gulf, lakes, canals and rivers has a wide appeal for every size and type of HOUSE BOAT and YACHT and each year, either living aboard yachts in the South or cruising in the various waters, is becoming more popular.

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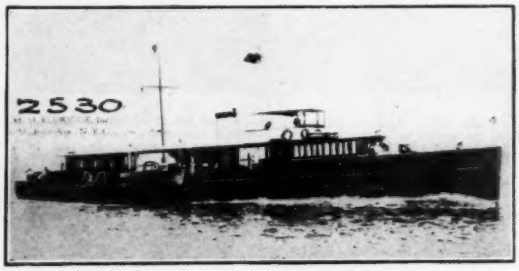
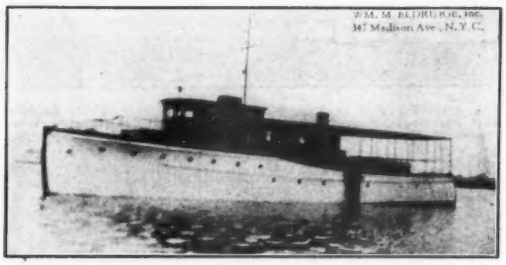
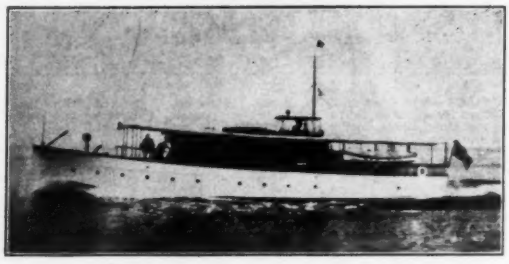


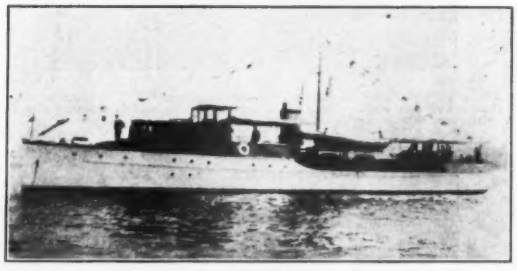
No. 2530—T. S. steam yacht, 140'x17'x6'4". Is in fine condition. Six staterooms, three baths. Speed 20 knots. For full particulars inquire of WILLIAM M. ELDRIDGE, Inc., 347 Madison Ave., New York.



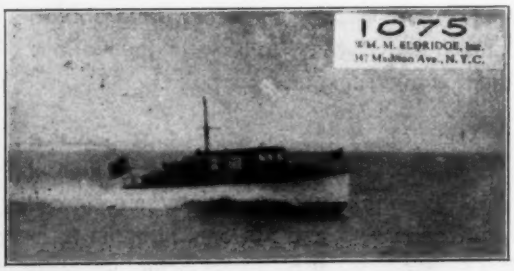
No. 2524—T. S. Diesel yacht, one year old. Has just been completely overhauled. Sleeping accommodations for six, one bathroom, two toilets. An exceptional sea boat. Can be bought at a reasonable figure. Inquire WILLIAM M. ELDRIDGE, Inc., 347 Madison Ave., New York.



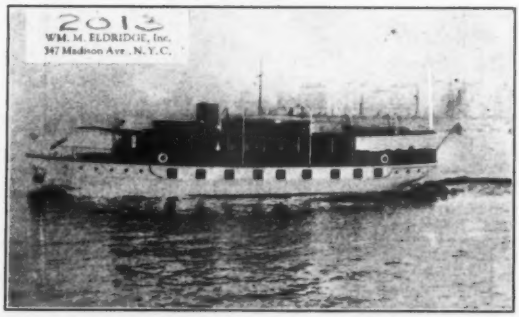
No. 1371—T. S. gasoline yacht, 70' of real boat. Has sleeping accommodation for ten. Radio, electric piano. Hall-Scott motors. For full particulars inquire WILLIAM M. ELDRIDGE, Inc., 347 Madison Ave., New York.



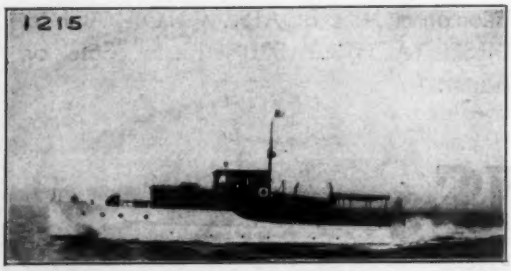
No. 1154—For Charter—93' T. S. Winton motored gas yacht. Two double, one single stateroom, two baths. Yacht is in fine condition and well appointed. Inquire WILLIAM M. ELDRIDGE, Inc., 347 Madison Ave., New York.



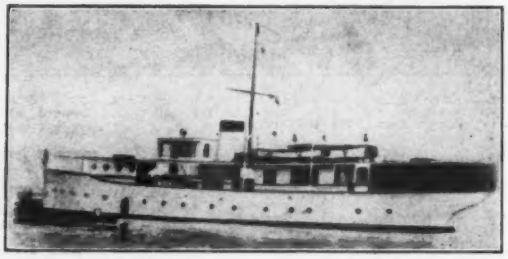
No. 1075—For Sale or Charter—47' long, 33 m.p.h. cruiser. Two Capitol Liberty motors. Elec. windlass, elec. refrigerator, lighting plant; all in perfect condition. Inquire WILLIAM M. ELDRIDGE, Inc., 347 Madison Ave., New York.



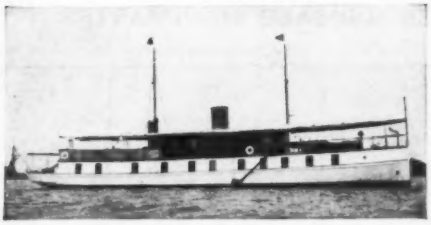
No. 2013—93' Mathis cruising houseboat. Winton motors. Four double staterooms, two baths. Furnishings are the best of their respective kinds and everything for comfort is included in inventory. Inquire WILLIAM M. ELDRIDGE, Inc., 347 Madison Ave., New York.



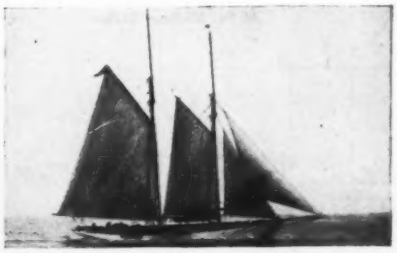
No. 1194—For Sale at a most attractive price—T. S. cruising yacht. Three staterooms, one bath, two toilets. Frigidaire, electric fans, telephones, Lux system, etc. WILLIAM M. ELDRIDGE, Inc., 347 Madison Ave., New York.



No. 2537—For Sale or Charter—110' Diesel yacht, in exceptional condition. Beautifully furnished. Inventory complete. Inquire WILLIAM M. ELDRIDGE, Inc., 347 Madison Ave., New York.

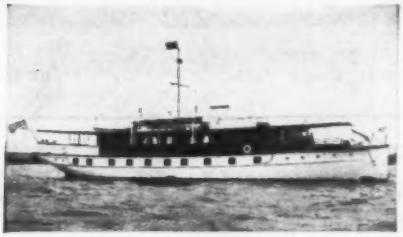


NO. 1026—FOR SALE or CHARTER—100' Cruising Houseboat, Winton Engines giving speed of 12 miles, 6 double staterooms, 3 baths, ideal for southern and northern waters, boat in first-class condition.



NO. 2366—FOR SALE or CHARTER—60' L.W.L. aux. power, 1 double stateroom, 2 single staterooms, 2 toilets, boat in first-class condition, ideal for offshore cruising.

NO. 809—FOR SALE or CHARTER—One of the new well-known New York Yacht, Launch and Engine Company's 77', new 1926, in perfect condition and fully equipped. This boat is well known in southern and northern waters, 2 double, 2 single rooms, 2 baths.



NO. 1275—FOR CHARTER ONLY—101' 2" Diesel Cruising Houseboat, Mathis built. Has 4 double, 1 single staterooms, 5 baths, very large deck-house, boat in perfect condition. Fully equipped.

NO. 1105—FOR SALE—93' Mathis Houseboat, Winton powered, owner's quarters include 4 double staterooms, 3 baths, large deck-house, boat in beautiful condition.

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Now is the time to plan for fall and winter cruising . . . in fact, the available supply of craft of the better type is very limited.

But every boat on the John H. Wells, Inc., list for sale or charter is selected carefully to ensure for you a cruise luxuriously comfortable and free from care . . . every type of boat for every water is included. May we suggest an appointment to discuss your requirements?

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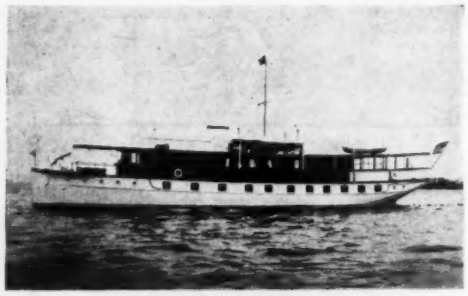
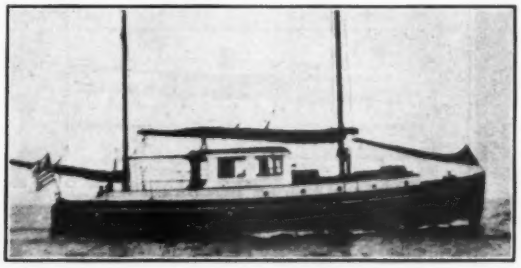
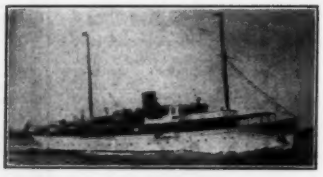


No. 7564
100 ft. Diesel House Yacht



No. 9194
46 ft. Motor Sailer



No. 8204
160 ft. Diesel Yacht

No. 8913
92 ft. Express Yacht

No. 5081
105 ft. Power Yacht

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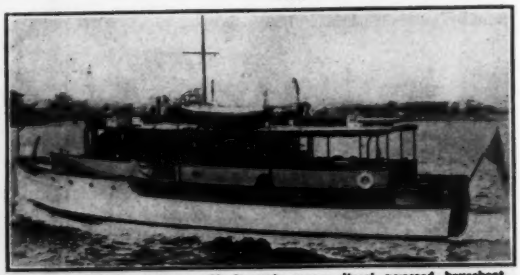
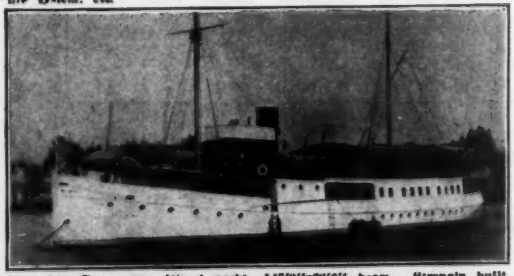
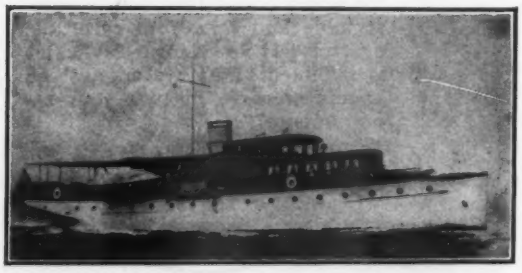


No. 4765—Sale or charter. 67 ft. twin screw diesel powered houseboat. Three double and one single staterooms. Two toilets, bath, etc. Roomy deckhouse containing pilot-house, dining and living room. Two 75 H.P. diesel motors. Speed 12-13 miles. Electric plant, hot water heat, Lux fire system, etc.

No. 2905—Twin-screw Diesel yacht, 100' x 19' x 5'. Very heavily constructed of wood. One double and four single staterooms. Four bathrooms. Good crew's quarters. Two 135 h.p. Winton-Diesel motors, speed 10 knots. Lighting plant, Frigidaire, electric windlass, hot water heat. Large fuel capacity. Price attractive for quck sale.



No. 2929—Twin-screw Diesel yacht, 147'9"x28'6" beam. Strongly built in excess of Lloyds 100 A-1 classification. Steel construction. Built for extended cruising. Seven large staterooms. Three baths. Good crew's quarters. Two 330 h.p. Diesel motors, speed 10-12 miles. Two electric plants. Ice machine, cold storage, etc. Hot water heating plant. Wireless, ventilating system, etc.



No. 3110. 85-ft. twin screw power yacht. Two double and two single staterooms. Two bath rooms. Large deckhouse containing dining saloon, pilot-house, and living room. Two 160 H.P. motors. Speed 12-14 miles. 110 volt Universal generator. Hot water heat. Splendid cruising yacht. Beautiful condition.

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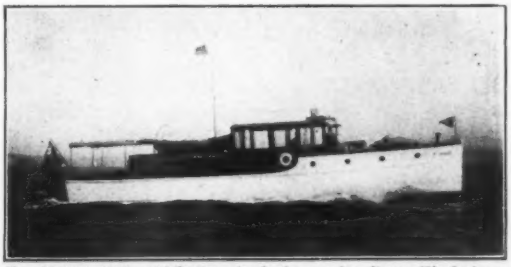
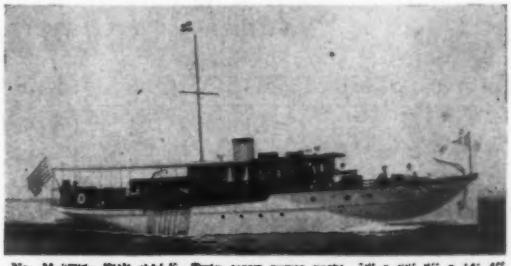
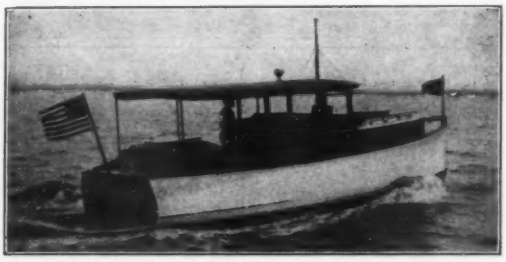


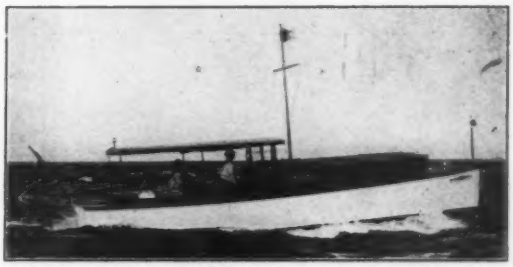
No. M-4562—FOR SALE—Several of the popular Dawn 45' Cruisers. We will be very glad to send complete list of available boats upon request. SPARKMAN & STEPHENS, Inc., 11 East 44th Street, New York.



No. M-4396—FOR SALE—Twin screw power yacht, 72' x 96' 8" x 14' 4". Built 1927. Large deck saloon, two double and one single staterooms in owner's quarters. Also two toilets and shower. SPARKMAN & STEPHENS, Inc., 11 East 44th Street, New York.



No. M-4685—FOR SALE—A. C. F. 30' double cabin cruiser, built 1929. Sleeping accommodations for six, toilet, galley, etc.; 72 H. P. motor. For further data consult SPARKMAN & STEPHENS, Inc., 11 East 44th Street, New York.



No. M-4516—FOR SALE—One of the popular Elco 34' Cruisettes. Sleeping accommodations for four, toilet, galley and roomy cockpit. For further data consult SPARKMAN & STEPHENS, Inc., 11 East 44th Street, New York.

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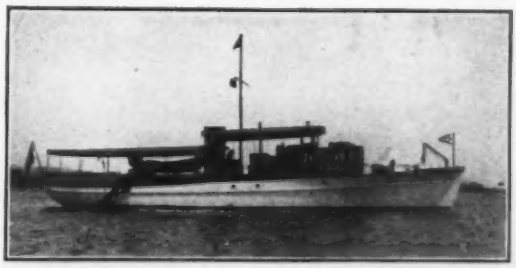
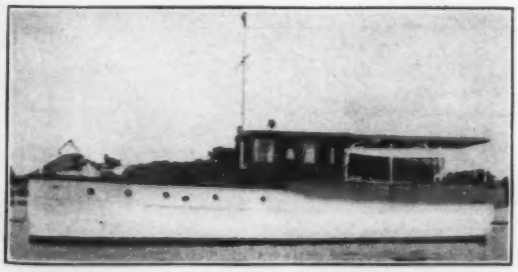
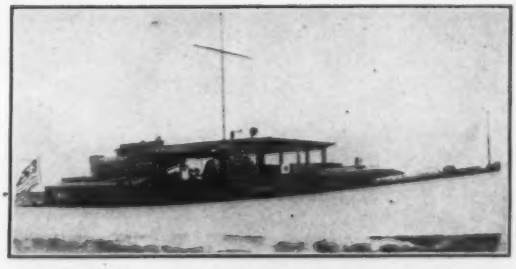
No. 745—One of the well known Lawley 68' cruising yachts, built in 1926, with Sterling power giving a speed of 14 miles. Accommodations consist of: 2 double staterooms, main cabin, 2 owner's toilets, also accommodations for crew. Condition excellent.



No. 657—Fine 80' Twin Screw power cruiser, designed for comfortable cruising and having luxurious accommodations for owner and guests. Condition perfect. Remarkable bargain.



No. 594 42' Elco built in 1928. 125 H.P. motor, speed 13 miles. Offered at attractive price.



No. 1075—Popular 46' Matthews double cabin open bridge cruiser. Double berth in owner's cabin forward, four berths in after cabin, each has enclosed toilet room. Sterling motor giving speed of 17 miles. Boat only one year old and in excellent condition.

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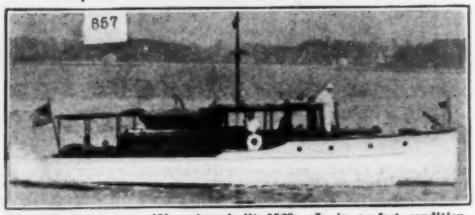
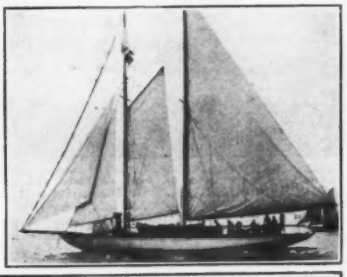
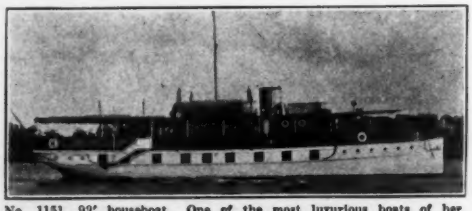


No. 857, twin screw 48' cruiser built 1929. Is in perfect condition and reasonably priced. Exceptionally good buy.



No. 625, exceptional buy. Lawley built auxiliary schooner yacht, 63' 4" x 43' 9" x 14' 6" x 7' 6". Generous accommodations for party of six. Beautifully finished and in first class condition.



No. 1151, 93' houseboat. One of the most luxurious boats of her type available. Cruising accommodations for party of seven. Twin screw. Condition perfect. Very reasonably priced.

No. 895, 75' fast commuter. Designed by Eldredge-McInnis, Inc., built by F. D. Lawley 1929. Speed 21 m.p.h. Fully equipped. Will sell at sacrifice.

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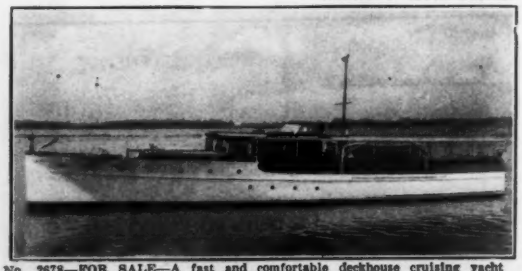
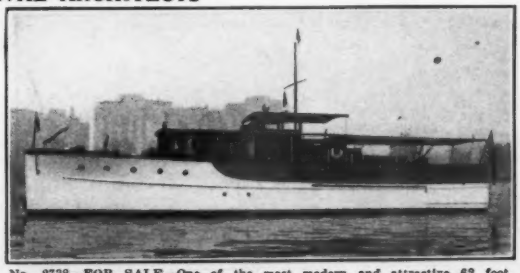
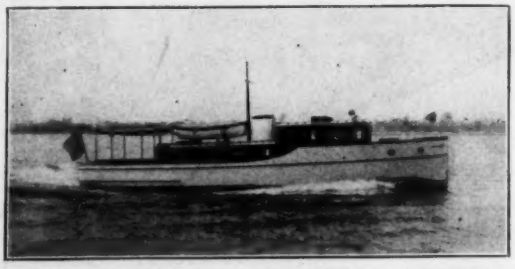


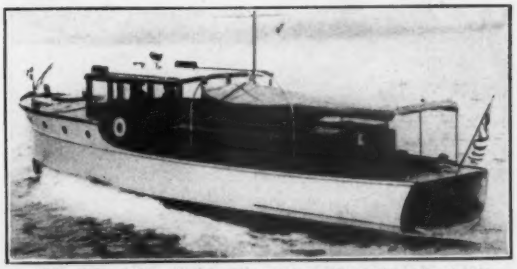
No. 2678—FOR SALE—A fast and comfortable deckhouse cruising yacht of unusually graceful and attractive appearance 83' x 15' 6" x 3' 10". Beautifully finished. One of the finest yachts of her type afloat. Sterling powered. Hull double planked. Apply Henry C. Grebe & Co., Inc., 400 N. Michigan Ave., Chicago, Ill.



No. 2738—FOR SALE—One of the most modern and attractive 62 foot twin screw deckhouse cruising yachts available. Has had only about four months use. Has three staterooms, bath, two toilets, large deckhouse, separate navigating bridge and observation deck. Exceptionally comfortable and good sea boat. Powered with two 130 horse-power reduction gear engines. Completely equipped, in commission. Now has continuous awning. Henry C. Grebe & Co., Inc., 400 N. Michigan Ave., Chicago, Ill.



No. 2550—FOR SALE. One of the popular A.C.F. 47 footers. Hall-Scott powered. Has independent lighting plant and complete equipment. An ideal all weather cruising boat with a good turn of speed. Price attractive. Further particulars from Henry C. Grebe & Co., Inc., 400 N. Michigan Ave., Chicago, Ill.



No. 2629—FOR SALE—45 foot twin-screw, double cabin enclosed bridge deck Dawn cruiser. Sleeps six. Has complete equipment including Lux fire extinguishing system, separate generator, etc. Henry C. Grebe & Co., Inc., 400 N. Michigan Ave., Chicago, Ill.

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